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REPORT

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Department of Mines

OF PENNSYLVANIA

Part 1—Anthracite

1911

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LETTER OF TRANSMITTAL

Department of Mines,
May 7, 1912.

To His Excellency, John K. Tener, Governor of Pennsylvania:

Sir: In compliance with the Act of Assembly of April 14, 1903, I beg to submit herewith, for transmission to the General Assembly, the report of the Department of Mines for the year ending December 31, 1911. Part I covers in detail the operations in the twenty-one Anthracite Districts, Part II the operations in the twenty-five Bituminous Districts, as returned by the Inspectors. Observations and suggestions are also offered relative to mining subjects.

Respectfully submitted,

JAMES E. RODERICK,
Chief of Department of Mines.

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REPORT

OF THE

DEPARTMENT OF MINES

INTRODUCTION

The year 1911 was an unusually active one in the coal trade. In spite of the depression and uncertainty that surrounded many other lines of business it is evident from the great tonnage of the year that no matter how quiet or inactive other lines of business may be, there is nevertheless a great demand for fuel.

The anthracite tonnage for the year was the heaviest in the history of the industry, amounting to 90,917,176 net tons. This exceeds by about 4,000,000 tons the great production of 1907. The bituminous tonnage amounted to 142,189,329 net tons. The anthracite tonnage was not only proportionately greater than the bituminous, but the coal was marketed with a good profit. This industry is one of the most stable and successful in the country.

Generally the bituminous trade has been demoralized and discouraging, owing to faulty merchandizing, that is, the production is unrestricted and the great amount of coal on the market naturally keeps the prices at a low level. It is high time that the bituminous producers effect some regulation of their trade that will bring them more money for their coal; but how to do this is a problem. The business interests of the country are now so hedged about by restrictive laws regarding the making of price agreements that relief by this method is highly improbable. There is a generally expressed opinion among those interested in bituminous coal mining that legislation must be secured that will enable the producers to exercise a better control of the industry, under Federal supervision if need be. Such control seems essential too if real conservation, that is, maximum recovery with minimum waste, is to be accomplished.

There were no labor difficulties of consequence to interfere with the production in Pennsylvania and the supply therefore has been abundant throughout the year, except in the special sizes of anthracite.

The agreements in both regions expire April 1, 1912, and pending the adjustment of differences between the miners and operators and the adoption of new agreements the usual unsettled conditions will no doubt prevail.

Mining men generally are hopeful that a strike may be averted; this is particularly true in the anthracite region. A strike not only

interrupts the course of trade and causes demoralization, but it engenders a feeling of bitterness and causes a natural estrangement between the operator and the miner that are hard to overcome and may take months to obliterate.

Fortunately it is probable that nothing more than a suspension will take place while the differences that exist are being settled. This is the sane and sensible arrangement now resorted to pending the settlement of differences and is frequently nothing more than a vacation period during which time amicable relations may be preserved between the operator and the miner.

A strike is a break-off definitely of all negotiations, while a suspension is a period in which the negotiators can keep in touch and arrange for a settlement. Both a strike and a suspension mean a cessation of work, but the former may be attended with feelings of active animosity and turbulence of action, while the latter is a do-nothing period during which the opposing forces may retain the most friendly relations.

A suspension of a few weeks would not be unwelcome to most of the operators. In the anthracite region the operators by reason of their control of the industry will no doubt readily adjust matters, but it will be more difficult for the bituminous operators not only because of the lack of cohesion in their ranks, but because both union and non-union districts contribute to the output. While some apprehension may be felt regarding the outcome in the bituminous region it is very probable that a cessation of work for a few weeks will be all that will mark the changes from the old to the new agreements.

The consumption of coal in various ways is constantly increasing. There is a great demand for its use in gas making, the production of electricity, railroad fuel and domestic consumption. It is probable from the indications at the close of the year that 1912 will be one of the greatest years as far as production is concerned. At least the outlook for the first six months is unusually good and it is hoped that the political excitement of the year will not affect the latter part.

Probably the American coal trade will be benefited by the opening of the Panama canal. It has been suggested that the opening of the canal may render feasible the establishment of a great American Station for supplying coal from the mines of the United States to the vessels of the world. An estimate prepared by the Bureau of Statistics, Department of Commerce and Labor, of the coal consumption on the oceans of the world shows the amount to be approximately 75,000,000 tons a year, valued at over $250,000,000. An impetus may thus be given to export trade that will mean a great deal to the American shipper. Coal exports have shown a steady and gratifying increase during the last ten or twelve years and the amount now sent abroad is about three times as great as in 1900.

COAL PRODUCTION IN PENNSYLVANIA

The table herewith shows the average number of days worked in each district during 1911, the production of each district, the average production per day in each district, and the estimated production on a basis of 280 working days, or an average of 19½ days each month; also the total production, the total average production per day and the total estimated production of 280 days.

Districts	Average number of days worked in breaker	Production	Average production per day*	Estimated production of 280 days*
First,	229	2,773,079	10,894	3,050,230
Second,	227	5,286,459	21,992	6,157,760
Third,	212	4,628,658	20,282	5,678,960
Fourth,	214	4,071,876	16,668	4,667,040
Fifth,	225	3,910,238	16,173	4,528,440
Sixth,	252	5,064,682	20,098	5,627,440
Seventh,	204	5,469,319	25,285	7,079,800
Eighth,	233	3,966,457	16,616	4,652,480
Ninth,	203	5,794,137	25,526	7,147,280
Tenth,	225	4,423,682	18,177	5,089,560
Eleventh,	249	5,785,654	23,180	6,490,400
Twelfth,	261	3,043,787	11,662	3,265,360
Thirteenth,	241	3,447,275	12,644	3,540,320
Fourteenth,	243	2,476,389	10,191	2,853,480
Fifteenth,	240	3,439,314	14,330	4,012,400
Sixteenth,	239	2,908,339	11,561	3,237,080
Seventeenth,	273	4,671,704	16,144	4,520,320
Eighteenth,	233	2,866,067	12,301	3,444,280
Nineteenth,	262	3,173,221	11,623	3,254,440
Twentieth,	226	2,364,083	8,770	2,455,600
Twenty-first,	216	1,611,630	7,461	2,089,080
Totals and averages,	234	81,176,050	331,578	92,841,840

*Production from washeries not included.

INCREASE IN THE NUMBER OF MINE INSPECTORS

The policy of the Department of Mines has always been to place every possible safeguard around the vast army of miners that labor in the great coal fields of Pennsylvania. This large body of workers, numbering more than 350,000 and supporting directly at least 1,000,000 persons and indirectly supporting and influencing a far greater number, are engaged in work characterized by peculiar dangers and discomforts. To alleviate this condition as much as possible, the State has very wisely and considerately from time to time enacted legislation designed to promote the welfare of the miners in regard to their safety and comfort.

It is the province of this Department to enforce these laws, and in order that they may yield the greatest efficiency and do the most good the Department has deemed it wise to increase gradually the number of Mine Inspectors. This policy has resulted in the increase of Inspectors in the Bituminous region from 15 in 1903 to 25

in 1911, and in the Anthracite region from 15 in 1903 to 21 in 1911. The result of this action of the Department has been to give much more careful supervision to the mines and in that way make possible safer and more healthful conditions for the mine workers.

WORK OF THE MINE INSPECTORS

The work of the Inspectors has been very satisfactory during the year. They have made every effort to secure strict compliance with the mining laws, and the result has been such as to commend their work to the Chief of the Department of Mines.

During the year they spent 3,172½ days inspecting mines; 132½ days inspecting machinery and plants, 458 days investigating accidents; 118½ days attending inquests; 1,141 days at office work, 37 days inspecting maps and plans; 348½ days in consultation on mining matters; 1 day in consultation on legal matters; 158 days traveling on duty; 353 days on sick list; 116 days legal holidays; 59 days attending court; 37½ days at mine fires; 227½ days on Mine Foremen's Examining Boards; 19 days attending Mining Congress; 31 days attending funerals; 12 days on account of deaths in families; 4 days sickness in families; 98 days on vacation; 178 days on private business; a total of 6, 702 days, or about 319 days a year for each Inspector.

ANTHRACITE LAW REVISION

An act was passed by the Legislature and approved June 14, 1911, creating a Commission to revise and codify the present Anthracite Laws of the State.

The act provides that three of its members shall be selected from the operators, managers and superintendents of the Anthracite region, three from among the mine workers of the region, one shall be a member of the Senate, one a member of the House of Representatives and one a person versed in the art of mining. Governor John K. Tener appointed on the Commission the following persons: Messrs. W. R. Reinhardt, Shamokin, Operator; W. G. Robertson, Scranton, Operator; W. D. Owens, West Pittston, Operator: Martin A. Nash, Glen Carbon, Mine Worker; H. C. Morgan, Scranton, Mine Worker; Peter J. O'Donnell, Wilkes-Barre, Mine Worker; Sterling R. Catlin, Wilkes-Barre, State Senator; Edwin E. Jones, Harford, Member of the House of Representatives; James E. Roderick, Hazleton, Chief of the Department of Mines.

The act provides that the Commission shall hold its meetings in the city of Wilkes-Barre where all persons who are interested in the revision and codification of the laws may appear and give expression to their views. The Commission is authorized to call into consultation any person who in its opinion may be able to give information that will assist in the work of revision.

The Commission met to take up the work imposed upon it, but in a short time found that very little progress could be made by so large a body and it was decided to entrust the preparation of the preliminary work to a sub-committee of three. The Chairman of the Commission, Senator Catlin, named James E. Roderick, W. D. Owens and P. J. O'Donnell to act as members of the sub-committee. Hon. W. W. Hall, of Pittston, was elected Secretary for both the Commission and the sub-committee. The work is now progressing rapidly and it is expected that the Commission will be ready to submit the new code to the Legislature in 1913, as required by the Act creating it. No doubt many changes will be made in the laws governing this great industry, as Chief Roderick has for many years advocated new legislation to meet the demands of the new conditions.

A STATE COAL MINE

In this connection it is interesting to observe that an experiment in the operation of a coal mine on State land and under State control is being tried in Colorado. A representative of the State has been granted a lease on coal land, and the "State mine" will be operated under contract, subject to certain restrictions. Any attempt to sell out to a trust or extort unreasonable returns from the people will result in forfeiture of the lease.

The mine is located near Como. The contract with the operator stipulates that "the coal mined must be sold at a profit not to exceed fifty cents per ton, and that no combination may be entered into to keep up the price of coal. The operator's books must be open to inspection by the State Land Board to make sure that the operator lives up to the letter of his contract."

This is the first attempt at State control of coal-mine operation and price regulation in the United States, and, in consideration of the controversy regarding governmental leasing of coal lands and operation of coal mines, the outcome of the experiment will be watched with interest.

EDUCATION OF MINERS

It is a recognized fact that one of the greatest elements of physical danger to the industrial workers of the United States is to be found in the inability of the many workers from Continental Europe to understand the English language. The Department of Mines has appreciated the gravity of this condition, particularly as pertaining to the workers in the coal mines, and has for the past ten or twelve years made an effort to have the Miners' Examining Boards live up to the provisions of the law in the issuance of certificates to miners. The Act of 1897, amendatory of the Act of 1889, requires that each miner before receiving a certificate of qualification shall have answered

twelve questions intelligently in the English language. We regret to admit the failure of the effort on the part of the Department; the Examining Boards have continued in their illegal and nefarious practice of giving out certificates indiscriminately, and today the mines are filled with workers who cannot speak and, in many cases, cannot even understand the English language.

It is gratifying to know that other industries are awakening to this menace to the safety of employes and that efforts are being made to improve the conditions. Some of the manufacturers in New England have taken up this matter recently and are making the study of English compulsory on the part of their employes. Notices were posted at the mills to the effect that six months' time would be allowed for the acquisition of this knowledge. The task, as may be imagined, was not an easy one.

The Iron Age in speaking of this movement says:

"The campaign had to be carried beyond the works. The clergy of the city, whose congregations include the men and women in question, were called into the conference. The services of many churches are conducted in foreign tongues, so that their parishioners receive no education in English from this source. Most of the clergy have seen the wisdom of the effort and are assisting so far as is within their power. Night schools were established in the works, stenographers acting as instructors. One of the plants employs a physician who is in frequent contact with every employe. The test of a knowledge of English is largely through him, in the ability of employes to understand his words and to answer him intelligently."

The results thus far have been eminently satisfactory and if the system could be extended and enforced wherever foreign workers are employed in large numbers, it would undoubtedly tend to the safety of the employes.

It is unfortunate that many of the foreigners who come to this country, particularly to the mining region, have no intention of remaining. Their stay is prolonged only long enough to amass a considerable sum of money and then they depart to their native homes where they can live among their own people under conditions more congenial to them. Having the feeling that they are not to make this country a permanent residence, they take no interest in our institutions or our civic life and make no effort to learn the language. It is to be hoped that this compulsory method will become general. If it could be applied to the mine workers of the country there would be a material lessening of the dangers pertaining to mining and, no doubt, a very desirable improvement in the conditions generally that surround the mining occupation.

The American mine operator and the English-speaking miners appreciate this need of education on the part of their foreign co-laborers. The danger to be apprehended from workers who are not only unskilful and inexperienced, but ignorant of the English language and therefore incapable of understanding the rules and instructions, can scarcely be overestimated.

During recent years this danger has increased with the great increase in the number of foreign workers, and the realization of the menace these men are to themselves and their fellow-workmen has

led to the adoption of educational means by many of the operators. It is very gratifying to know that this work is producing most beneficent results and will have a direct effect in minimizing or reducing the dangers of mining.

In this connection we refer to the work of the Mining Institute in the Anthracite region, the purpose of which is to extend to the mine workers opportunity for the acquiring of knowledge on various subjects in addition to the English language.

The subjects taught in the Mining School are as follows: Mine Law, Mine Gases, Ventilation, Air Compression, Haulage, Drainage, Mine Mathematics, Mine Surveying, Mechanics, Timbering, Pumping, Electricity and Magnetism, Track Work, Preparation of Anthracite.

The Institute has at present 1,562 members and the Mining School proper 67 students. The Institute held six meetings during the year, with an average attendance of 265 men.

In connection with the meetings a question box is placed at the door and the men who are too timid to ask questions in person are led to drop many questions into the box and these questions are later taken up by the Board of Directors and answered by some competent person. The utmost freedom of speech and opinion is allowed in connection with the public meetings of the Institute. The membership includes all classes of the mining fraternity from the door boys to the presidents of some of the companies. The superintendents and mine foremen make special effort to develop intelligent interest on the part of men and boys in their employ.

The Institute is affiliated with the Young Men's Christian Association and works in perfect harmony with that Institution.

ECONOMY AND MINE ACCIDENTS

A great deal has been said in recent years regarding the relation of economy to mine accidents. Some of the more radical thinkers advance the theory that if the mine operators were compelled to pay for the destruction of human life, say, from one thousand to five thousand dollars for each fatal accident, the amount, of course, to be determined by the degree of neglect charged against the superintendent, foreman, assistant foreman or fire boss, as the case may be, there would be much greater efforts made to reduce the fatalities. Such a method, it is asserted, would compel or at least induce managers and general superintendents to insist upon more care and precaution on the part of all persons connected with the operation of the mines, and as far as possible all unnecessary risks of mining and transportation would be eliminated.

I do not fully agree with this view. In my opinion the person directly responsible for an accident (if not the victim) should be held strictly to account and punished for his neglect or carelessness. It is extremely difficult to fix the punishment for such acts of neglect or carelessness, but as a general rule it would be nothing more than just that the miner who neglects to secure the working place over

which he has charge should, if his neglect results in the loss of life, be punished by imprisonment for at least five days. A similar punishment should be meted out to mine foremen, assistant mine foremen and fire bosses whose carelessness and negligence result in fatalities.

A superintendent whose neglect of duty results in fatalities to those under his charge, directly or indirectly, should suffer a longer term of imprisonment, say, ten days.

While, as stated before, I do not believe in imposing penalties upon the operators for the accidents that may occur in the mines through the neglect of their officials, I am very decided in my opinion that in all cases of accident the victim, if seriously injured, should be taken care of by the operator until he recovers, or in case of death those dependent upon him should be compensated as liberally as possible.

I am also of the opinion that in alleviating the sorrow and contributing to the personal needs of those who are left dependent, there should be no distinction on account of the manner in which the bread winner was removed, whether by his own rash act or the act of some one else. Some day in the not far distant future the rules as applied by the various governments to the men in their armies and navies will be made applicable to the men in the mines and in other dangerous industrial pursuits. It will then be not a question as to how the man was killed or injured, but the fact that he was killed will be all that is necessary to bring to his dependents a compensation that will place them beyond want.

Coal companies have frequently been criticised for what has been designated as inordinate greed in their efforts to increase their tonnage at the expense of the safety of the employes. This opinion is erroneous, for while all managers and superintendents make every effort to increase the production of coal they, as a rule, bear in mind while doing so the welfare and safety of the employes. In fact many of the largest companies have adopted as their motto, "Safety First," and they hold their superintendents, foremen and fire bosses who have charge of the mines to close account for any loss of life.

COMPENSATION FOR MINE ACCIDENTS

A question that has always been close to the Department of Mines is the question of rendering financial assistance to mine workers and those dependent upon them in case of death. The Chief of the Department has for years, ever since he wrote his first report as inspector in 1881, urged the adoption of some method of taxation or of fixed contributions that would relieve the immediate wants of those affected by accidents, give proper support to those who are rendered incapable of continuing work and also provide for the widows and children of those who are killed.

It is a gratifying fact that the welfare of injured mine workers and the families who may be left destitute by the death of husbands and fathers is receiving more attention now than ever before. This

beneficent work has been taken up by the United States Government, and also by some of the State Governments, and its scope has been greatly enlarged by including workers in all industries. In Pennsylvania, under authority bestowed by the last session of the Legislature, Governor Tener sometime ago appointed what is termed An Industrial Accidents Commission. The Commission consists of the following members: David A. Reed, Pittsburgh, Chairman; J. B. Colahan, Jr., Philadelphia; John J. Cushing, Monessen; Francis Feehan, Pittsburgh; George C. Hetzel, Chester; Morris Williams, Philadelphia; Francis H. Bohlen, Philadelphia, Secretary. This Commission has given a great deal of attention to the subject and has held numerous meetings in various parts of the State in order that they might arrive as nearly as possible at the actual conditions. Testimony was taken from experts and workmen in industrial pursuits, and the Commission has now prepared for presentation to the Governor a tentative draft, the main point of which is the collection of damages for injury or death by legal procedure, and presents what is described as an elective schedule of compensation, under which the employer pays automatically to the employe if injured, or to his heirs if he is killed, the amount set forth in the schedule. Nothing can interfere with the operation of the schedule if the employe elects to work under it at the time he accepts employment, and it is so arranged that the compensation paid is divided into weekly payments on the plan of weekly wages, rather than paid in a lump sum.

This proposed Act will, of course, make great changes in the present Pennsylvania statutes dealing with compensation to workmen for industrial accidents. One striking departure from the present law is that "the right to compensation shall not be defeated upon the ground that the injury was caused in any degree by the negligence of a fellow-employe or that the injured or deceased employe assumed the risks inherent or incidental to or arising out of his employment or arising from the failure of the employer to provide and maintain safe premises or suitable appliances or competent employes, which said grounds of defence are hereby abolished."

If this bill should be enacted at the next legislature, it will become effective July 1, and will be known as the "Workmen's Compensation Law of 1913."

In the various articles that have appeared from time to time in the annual report of this Department on the subject of compensation, the opinion has been expressed that in case of a total disability the employe should receive compensation as long as he lives, widows should receive compensation as long as they live or until they remarry, and children should be provided for until they arrive at the employment age.

ELECTION OF MINE INSPECTORS

It has always been the opinion of the Chief of the Department of Mines that the election of mine inspectors by the people was an unwise, dangerous and pernicious practice, and it is gratifying to have this opinion corroborated by two eminent authorities on mining questions—the Coal Age and Mines and Minerals.

In a comprehensive and well written article the former journal, after reviewing at length the various legislative acts passed for the regulation of the Anthracite Industry and presenting interesting details to show their beneficent effect in reducing fatalities, takes up the matter of the election of mine inspectors and discusses it with an intelligence and vigor that should impress any reader with the grave defects inherent in this method. The latter journal confines its remarks entirely to the question of the election of the inspectors and portrays the evils of the system in unanswerable logic. We quote as follows (from Coal Age):

THE ANTHRACITE MINE INSPECTORS' ELECTION LAW, 1901

There is another feature of the anthracite law, enacted in 1901, that has operated quietly to undermine and destroy, during the past decade, all that the law had previously accomplished. This enactment is the law requiring the election of the anthracite mine inspectors by popular vote of the people. The law has well been described as pernicious, seductive and destructive, as opposed to all that is wholesome, ingenuous and constructive. In his annual report for the year 1903, James E. Roderick, Chief of the Department of Mines, in Pennsylvania, refers to this law as the work of 'a few interested persons' who succeeded in inducing the anthracite miners, assembled in convention, to pass a resolution calling upon the legislature to amend the mining law so as to provide for the election of the anthracite mine inspectors by the people.

The reason given for this demand was that it would place in the hands of the voters in each district, the choice of the inspector for that district and remove all cause of complaint growing out of the appointment of an inspector who might prove objectionable to the miners of the district. The reasoning was seductive; it was seemingly a just and fair proposition to allow the people to choose, by direct vote, their own inspector. Thinking men, however, saw the inevitable result of granting this demand voiced by a few men whose judgment was temporarily blinded by the rehearsal of some supposed wrongs ascribed to an alleged objectionable inspector. The sequel has proved the unwisdom of the law, and to-day the demand among intelligent people for its repeal is even more urgent than that for its passage ten years ago.

EFFECT OF THE LAW ON MINE INSPECTORS

The mine-inspection service of the state is a thankless service. The men charged with its duties are officers of the law, whose business it is to enforce its provisions. To transgressors and violators of law, these men are often 'objectionable.' To place the choice of the inspector in the control of the voters of a district where the votes are practically dictated by a few men who desire to be unmolested and to make their own interpretation of the laws to suit their individual cases, would be to surrender the law to its violators.

What is law, when the officer charged with its execution is helpless in the hands of would-be violators of law? What is mine inspection when the inspector must close his eyes as he goes through the

mines and seal his mouth when he comes to the surface? But this is the logical result and what must be expected under the anthracite mine inspectors' election law. The inspector becomes the servant of the officials of the mines he inspects, instead of the servant of the people and an officer of the law.

On the inspector's side, the effect of this law is no less baneful. His conscience is stultified, his dignity degraded and his usefulness to the state forfeited. In some instances the inspector, in the anthracite region, has proved a mere figure head. It is true he has collected some valuable statistics of mining and drawn his salary. In other instances he has even made suggestions, some of which may have been carried out. Few indeed are the cases where there has been any serious contention on the inspector's part, who has generally refrained from making suggestions that would be at variance with the company's wishes.

EFFECT OF THE LAW ON EXAMINING BOARDS

One of the most harmful effects of the mine inspectors' election law is the influence exerted by the other members of the examining board for mine foremen to force the inspector into line, in reference to the desired recommendation of a candidate whose examination before the board has shown him to be wholly incompetent to hold the position of mine foreman, but whose political influence, backed by the expressed wishes of his company, demands recognition by the board. The mine inspector is an *ex-officio* member of the board of examiners for mine foremen, the other members of the board being two miners and one mine operator, superintendent or owner. The inspector is generally in a position better qualified to judge of the competency and fitness of a candidate to fill the position of mine foreman than any of the other members of the board. In most cases, however, he is compelled to set aside his own convictions and join with the rest in recommending the candidate and signing his certificate of competency. The refusal to do this would probably jeopardize his chances in the next election, and no one realizes this better than the inspector himself.

EFFECT OF THE LAW ON MINERS

Instead of this law working to the advantage of miners, as they had been led to believe it would, by placing in the hands of each miner a vote for the man of his choice, it has operated much to their disadvantage. In many instances the miner's vote is not his own but is cast in compliance with the dictation of bosses, which limits his choice of inspector to their selection of the man for whom he must vote.

The working of the law with respect to examining boards for mine foremen has proved a menace to the safety of mines, by the certification of many incompetent men for that position, by reason of which the lives of miners have been endangered.

The same law has also proved a hindrance to many ambitious, deserving miners, who have studied to fit themselves for foremen and assistant foremen. Their knowledge of theoretical and practical mining will, in many cases, surpass that of the man who secures his

certificate by other means than proving his competency in examination. Too often the worthy and competent miner is pushed aside by one whose only hope is through the employment of dishonest means to secure the necessary certificate.

REPEAL THE MINE INSPECTORS' ELECTION LAW

There is probably no law on the statute books of Pennsylvania, the repeal of which is more urgently demanded by intelligent mining men of all classes, from the miner who advocated the law, to the mine inspector who has most keenly felt its burden. Let the miners, who are responsible for the enactment of this election law, do their part to wipe it off the books, recognizing what is a fact, that it is a disgrace to honest mining, the work of grafters and wire pullers, and subserves no good purpose but rather is a menace to life and property and a hindrance to the merited advancement of ambitious and competent miners.* * *

The appointment of both the examining boards and the mine inspectors should be, confessedly, as far removed from politics and the influence of wire pullers as it is possible to have them.

The work of mine inspection is a most important work. It is and should be a subsidiary part of the state government and subject to its control, as far as its work is concerned. Owing, however, to the peculiar relations that the inspector must bear to the mine operator and miner, as custodian of the mine law, his position should only be assailable through the courts, by process of law.

There are strong reasons why the appointment of mine inspectors should be for a long period of years, say, 20 or 30 years, or good behavior with a time limit.

One of the most important of these reasons is the fact that a good inspector becomes more efficient and valuable each year. His growing familiarity with the mines and district in his charge and his knowledge of local conditions and requirements make his service more effective each succeeding year. He knows each mine as a mother knows her child. He understands better the whims and habits of both operators and men as time improves his acquaintance. A short term of office and the frequent change of inspectors is both troublesome and costly. Owing to the lack of a full appreciation of conditions, and, in part, to the desire of a new man to do something worth while and to make his presence felt, changes in the mine work or equipment are often urged that a longer acquaintance with the mine would show unnecessary and perhaps even harmful. The need of longer term appointments is more urgent in mine-inspection work than in any other calling, owing to the expense and danger incurred by ill advised changes in methods or equipment in and about mines.

A careful consideration of these and other facts, in the same connection, should impress any thinking man with the inadvisability of the mine inspectors' election law."

Mines and Minerals stigmatises the election of inspectors as the worst feature of the mining law. We quote as follows:

"Even when, as in the present Anthracite Mine Law of Pennsylvania the nominees for the office must be men who have passed a satisfactory examination, the plan is a vicious one.

It lowers the standard of the office and tends to make the incumbent, even if technically competent, truckle to the opinions of politicians, saloon keepers, and others whose influence should have absolutely no weight in his selection. It deters many men of superior qualifications from seeking the office, because as political candidates they must contribute heavily to their party's campaign fund, and then run the risk of being defeated, even if their qualifications are superior to those of their opponents. Besides, the position is one whose duties require all the time of the incumbent of the office, and if faithful to his duty he has no time to devote to campaigning from the time he registers as a candidate at the primaries, or earlier, till after the regular election. If he enforces the law and holds certain mine officials responsible for violations, he incurs their enmity and loses their votes and the votes of all they can in any way influence. If he compels working miners to observe the law, and prosecutes flagrant violations, he is accused of persecuting the workingmen, and that charge is used with telling effect against him at the polls. Every intelligent miner knows that the mine laws are frequently violated by mine workers, who not only recklessly endanger their own lives, but those of their fellow workers as well. Every intelligent miner also knows that there are violations of the law by some mine foremen and fire bosses, and that the overlooking of such violations encourages others. If a mine inspector does his full duty regardless of whom the penalty hits, he has very little chance for re-election.

Unfortunately there are many mine workers unable to understand English, and in no sense well informed technically, who can be easily influenced against the candidacy of an able and conscientious inspector, and be led to work and vote against the man whose services would be most valuable to them. Therefore, if he does his full duty, his chances of filling the office for more than one term are comparatively small. If, on the other hand, he truckles to both sides, and simply makes a show of doing his work, he is a good fellow, and can be reasonably sure of re-election, if he supports his party machine, and makes himself solid with the saloon keepers, bartenders, and others who exert an influence in general elections, even if they are absolutely unqualified to pass on the merits of a candidate for State Mine Inspector.

As far as the farmer vote is concerned, he will get that portion of it that belongs to the party on whose ticket he is a candidate. They won't assume to vote for a Mine Inspector on merit. Knowing practically nothing of the qualifications required, farmers will vote for their party's nominee. It is claimed that the United Mine Workers favor the election of mine inspectors. This may be true as far as a majority of that organization is concerned, but we do not believe a majority of the more intelligent skilled miners will favor such a policy when they seriously consider its evils and the chances it offers for the selection of inspectors who are not competent to, or who for selfish reasons will not, faithfully perform their duties.

The system is a bad one, even when men aspiring for the nominations have passed examinations showing their technical ability. It is infinitely worse when no examination or a less rigid examination is required.

In the foregoing we have no intention of reflecting on the ability and faithfulness of the present body of State Mine Inspectors for the anthracite regions of Pennsylvania. As a whole they are able and conscientious men, but there have been some for whom this cannot be said.

It is safe to say that of the present body, there isn't one, regardless of his party affiliations, who does not believe the former system of the Governor appointing inspectors from among those who had proved their competency, is the best way to secure efficiency in every respect.

There isn't one of the present Anthracite Mine Inspectors who would hesitate very long in resigning to accept a mine managership at the same salary he is receiving from the State, because such a position would be good for life or good behavior, and would not be subject to the chances of an election every four years with its attending annoyances and evils.

When the former and better plan of selecting inspectors was in force, there were no politics considered. Republican governors appointed Democrats, and Governor Pattison, who was the only Democratic Governor of Pennsylvania in many years, appointed Republicans. The question of partisan politics was not considered. Character and efficiency were the requirements.. Under the old law every inspector who did his duty, and who kept abreast with the increase of knowledge pertaining to coal mining knew he would be reappointed and kept in office as long as he was physically able to perform its duties. Naturally every year of service added to his efficiency. If a corporation, recognizing his ability, desired to employ him, it had to offer him a considerable increase in salary and other substantial inducements to get him. The State should have the best. But it cannot keep the best, if the conditions are such as to force men, for their own good, to leave the service of the State for the service of private corporations."

With most of the denunciation in these articles we heartily agree. There is no doubt about the benefits that would accrue to the service by a return to the system that was in vogue from 1870 to 1900, or the system now in vogue in the bituminous region. It is sincerely to be hoped that the code now being prepared by the commission appointed by Governor Tener, for presentation to the legislature in 1913, will embody this necessary reform.

The views of the Chief of the Department on this subject were expressed in his annual report for 1903 as follows:

"During late years considerable dissatisfaction was manifested regarding the inspectors, especially in Schuylkill county, and this feeling was intensified against one of them who, from mistaken judgment as to his duty, committed an act that, while not a violation of the law, was repugnant to the miners. This antagonistic feeling against the inspectors was encouraged and kept alive to such an extent by a few interested persons, that the miners finally assembled in convention and passed resolutions calling upon the Legislature to amend the mining law so that the anthracite inspectors could be elected by the people. They believed that this would do away with all objectionable inspectors and remove all causes of complaint, and that it would also open an avenue for ambitious miners to become inspectors. The

fact is, however, that the office of inspector has always been open to all miners qualified to fill it; but in all the years from 1870 to 1903 only one miner passed a successful examination before an examining board in the anthracite region. (The word 'miner' as used here means a man actually employed in cutting coal.) The reason for this is found in the fact that the operators have always advanced the most intelligent miners to be foremen and fire bosses, and many of them have become superintendents and general managers of large corporations. One of them has recently attained the presidency of one of the most prominent coal companies. It is from the class of miners who were foremen or superintendents that the anthracite inspectors, with one exception, have generally been selected, after a rigid competitive examination before a board composed of three miners and two mining engineers. With but one or two exceptions, the anthracite inspectors from 1870 to 1900 have been men of good moral character and practically and theoretically proficient. All the anthracite laws (1870, 1885 and 1891) have favored the miners in the formation of examining boards, as they have always had three-fifths of the membership of each board. They have therefore been able to control the actions of the boards, (and invariably the miners on these boards have acted as upright intelligent citizens as they are).

In compliance with the demands of the miners, the Legislature in 1901 amended Article II of the Anthracite Law of 1891, providing that after a certain date all inspectors should be elected by the people under the general election law of the State, after first having passed an examination and answered ninety per centum of the questions propounded. The election of mine inspectors by the people is unheard of in any other State in the Union, except Kansas, or in any other country of the world. * * * It is a most pernicious practice, as it brings the applicant for an office created for the preservation of life and property into the vortex of political intrigue, and I sincerely hope the time will soon come when both the miners and operators will demand the repeal of this *part* of the law. * * * The evil effects of the election of inspectors may reach even to the selection of mine foremen and assistant mine foremen. The inspector is an ex-officio member of each examining board and there is reason to fear that in many cases poorly qualified candidates who possess some political influence may be treated with leniency not only discreditable to the board, but inimical to the interest of the miners and operators. Incompetency in the office of mine foreman or fire boss is a menace to the lives of the miners and the property of the operators. Upon the vigilance, care and efficiency of the mine foreman and assistant mine foreman depends largely the welfare of the mining interests, and I note with regret that during the past year certificates of qualification have been granted to men regarding whose incompetency there can be little doubt."

In the report of 1907 the question was again referred to as follows:

"Since the above article was written in 1903 the fears entertained at that time have been more than realized. The inspectors have allowed the Examining Boards to pass scores of unfit men to act as

foremen, the great majority of them to act as foremen in gaseous mines. The climax was capped in 1907, when one of the boards passed 92 out of 95 applicants. The other members of the board can always outvote the inspector, it is true, but if he is firm in his determination to pass only competent persons, it is probable that the other members would not insist upon granting certificates to those who were not competent. Unfortunately, however, the inspectors are deterred from exercising their independence and from acting as justly as they might desire in the matter, because of the fear they have that the other members of the board and the applicants and their friends may at some future time use their influence to defeat them for re-election.

I wish to state here that the clause in the law that provides for the election of inspectors should be annulled, and thereafter the men passing the examination for certificates as foremen and fire bosses would undoubtedly be more competent to care for the safety of the lives of the miners and of the property of the operators. It may properly be mentioned here that, as Chief of the Department of Mines, I have no authority to withhold a certificate from any person who is recommended by an examining board as competent, even though I have ample proof in the examination papers that he should not be rated as answering correctly more than forty per centum of the questions asked, instead of over ninety as required.

There is no valid reason why the inspectors of the Anthracite counties of this Commonwealth should not be treated as the Bituminous inspectors are treated, and therefore it is greatly to be desired that the present provision in the anthracite law be repealed and that the Governor be empowered to appoint one board of examiners for the Anthracite counties to meet once every four years to examine applicants for inspectors, who shall be declared qualified upon answering correctly ninety per centum or over of the questions propounded, and the persons having the highest percentages then to be selected to fill the positions. Vacancies that may occur thereafter shall be filled by the selection of those candidates having the next highest averages. In case a vacancy should occur and there be no person on the eligible list, the board could meet again and hold a special examination.

The Anthracite inspectors, smarting under the injustice of the present anthracite law relating to the election of inspectors, prepared a bill providing for the appointment of inspectors by the Governor. This bill was codified from the Bituminous Mine Law and prepared for introduction in the Legislature during the session of 1909."

GENERAL REMARKS ABOUT MINE FIRES

Such fires as the one that occurred at the Pancoast mine, referred to elsewhere in this report, are greatly to be deplored not only on account of the loss of life and the destruction of property that in-

evitably result, but also on account of the erroneous impression that prevails regarding the conditions that cause them. The often unfair and always exaggerated reports of mine accidents and the unjust and indiscriminate condemnation of the management, the State inspectors and the Department of Mines, naturally lead those unfamiliar with the facts to the conclusion that nowhere but in the United States of America could such catastrophes occur. However, they do occur, even in Great Britain, where mining is an old art and one most closely supervised, as will be seen by the following quotation from an English paper:

"At about noon on December 14, 1911, a fire broke out at the Old Hednesford pit, five men losing their lives. At the time of the outbreak being discovered, about 100 men were in the pit, and so rapidly did the fire spread that they had to run to a place of safety. With five exceptions all the men reached the pit shaft and were quickly drawn up to the surface. The fire originated in a lamp house about 20 or 30 yards from the bottom of the downcast shaft, many of those who managed to reach the cage in safety having very narrow escapes.

At the inquiry the under manager (our assistant mine foreman) at the pit described the measures adopted in order to rescue the entombed men and to extinguish the flames. He said that he gave instructions for the doors to be closed, but admitted that the question of stopping the fan did not occur to him.

The mine manager (our mine foreman) said that it had never occurred to him that the bottom of the downcast pit was the wrong place for this shukey house (oil house). The fire, he thought, might have been caused by a lighted wick having been thrown down. The manager further said, if a team had gone in and found the men alive it would have been impossible to bring them out, unless some form of apparatus was carried by the rescuers to put on the rescued, and the latter knew how to use it.

Mr. Morgan, the deputy coroner, in summing up said he was afraid it would never be discovered how the fire originated. It appeared that the fire started near the shukey house, and by reason of the fact that oil lay on the floor around, it spread rapidly. If the lighted wick had been thrown down, the fire would run along the ground involving everything in its way, and in a short space of time the tubs (cars) would be ablaze."

If the men in this English mine had been working under the same conditions as the men at the Pancoast mine, not many of the 100 employes would have escaped. We find the same bad habit practiced abroad that we condemn in the American mines, that is, the habit of throwing on the ground or in some other place, the piece of lighted wick taken from the lamp when a new wick is placed in it. The piece of lighted wick is retained to furnish light while the new wick is being adjusted.

A further quotation is taken from an English Journal to show that they are just as likely to make mistakes in the English mines as we are in the mines of this country.

"At a mine fire at the Jammage pit, November 25, 1911, when six persons lost their lives, the point was raised, 'What about the rescue

brigade?" It was stated that the brigade went down the pit within two and one half hours after being notified, but it was too late to rescue the victims. The managers agreed with the inspector that if there had been a rescue brigade among their own men who could have entered the pit within twenty minutes of the accident probably no lives would have been lost."

This corroborates my opinion that no helmet brigade can be of any practical use in rescuing entombed men after an explosion unless they are on the ground at the time and are familiar with the workings of the mine. A matter of half an hour's time may mean life or death to the entombed persons. The helmet brigades should be sent in as soon as possible after an explosion; if it is necessary to wait an hour or two for a brigade to come from a distance it may be too late to rescue the men if any are alive. Again, if the rescue corps, say, of five persons enters a mine half an hour after an explosion, and finds two or three men alive half a mile away from the entrance, what can they do towards rescuing them? They cannot carry more than one out at a time; it is doubtful if they can do that. It is very evident, therefore, that too much dependence is placed on the rescue crew. I have never yet personally known of any one being rescued from a mine in this State by a helmet corps.

I have no criticism to make on this method of effecting rescues, but the corps to be of real service should be composed of the officials of the mine with other young men of the mine that can be drilled for the work. The officials would be familiar with the physical conditions of the mine and they would not be at the same disadvantage as strangers in finding their way into the various parts. Again, in the accident at the Jammage pit, the evidence brought out the fact that the fire boss was lost in the explosion and that the books were left in a wooden shanty which was blown to bits by the force of the explosion and carried to the sump with the water. Such a thing as that could not have happened in this Commonwealth under our present law.

DANGER FROM TIMBERING IN CASE OF MINE FIRES

The mine fire at the Pancoast and the mine fire at the D. & H. mine at Plymouth has brought to my attention the scores of miles of gangways, airways and chutes in the Anthracite mines that are closely double timbered and closely lagged and are as dry as punk. The danger existing under such conditions is apparent. The danger was not apparent at the Pancoast or the Plymouth.

Can these gangways, airways and chutes be made safe? Or must they be abandoned? If they can be made safe, how shall it be done? It is doubtful if they can be made ordinarily safe except by substituting steel, iron, concrete or some other incombustible material

instead of wood, and whether or not that is feasible or practical is a question that must be left to the general managers and general superintendents.

Under the mine law, all places should be made safe for men to work in. Is a gangway half a mile or a mile in length, closely double timbered and lagged, and dry as punk, safe for men to work in? How can they escape in case of a fire, say half a mile from the face, if the fire is not discovered at the start? Under such circumstances they would be as bad off as the men in the China Vein of the Pancoast mine.

To replace timber with steel, iron or concrete in many of the gangways opened in the Mammoth vein in many of the counties would add an additional dollar a ton to the cost of production. Can the coal companies bear this expense at the present price of coal? While this danger exists and has existed for fifty years very few lives have been lost by fire in gangways, airways and chutes. But a disastrous accident of this kind may occur any day, and the purpose of this article is to call attention to this matter so that preventive measures may be taken.

The Avondale disaster and the Pancoast disaster are not parallel cases. A disaster such as Avondale can never occur again, as every shaft and every slope now has a second opening. Yet there is some danger from fire in breakers that were built over or near the shafts before the law was enacted, or were rebuilt since its enactment under a favorable ruling of the court on the subject.

An accident of this kind occurred at the shaft of the Pennsylvania Coal Company, where the breaker was destroyed. Luckily the shaft had second openings available through the outcrop openings by which all the employes escaped.

MINE FIRE AT THE PANCOAST MINE

A very disastrous fire occurred in the engine house in the China vein of the Pancoast mine of the Price-Pancoast Coal Company, April 7, 1911. Disasters of this kind are very rare, but they may be very destructive both to life and property, as was the case in this instance. Not since the Avondale mine fire in September, 1869, has there been any similar disaster of equal magnitude.

This engine house (if it can be properly designated as such) consisted of an open space excavated in the coal about 30 feet long and 10 feet wide, with twelve sets of ten-inch round timber, the collars between notches being 10 feet and the height being 8 feet. The engine was placed on the floor resting on two square stringers and fastened to the bottom rock. The platform on which the engine rested was 5 x 8 feet and made of two-inch plank. From the engine house a small opening about 6 x 6 feet was made through the coal to the passing branch that leads to the tunnel. The engine had been in use for about six years and had never at any time caused any apprehension on the part of the inspector, superintendent, mine foreman, fire boss or any of the employes as to the possibility of danger from fire, and, in my opinion, judging from personal observation, no one would have

deemed it possible that a fire could occur in the engine house that would be of such serious consequences. The unexpected happened in this instance.

As can be seen from the tracing herewith submitted, the engine house was placed about 50 feet off the double track branch leading into the tunnel that cuts the China vein and on this branch twelve empty cars were standing. The veins at this point form a small basin and the tunnel is driven through the top rock of the China vein, penetrating the vein at a distance of 300 feet. The engine was placed at this point to hoist the coal.

After the fire was ignited in the engine house the heat and smoke therefrom were carried by the air current to the double track branch directly opposite, setting the cars on fire and thence to the tunnel and through it to the workings of the China vein on the other dip and into the workings, as can be seen on the map, to the men at their working places in the several gangways.

It is my opinion, as stated at the inquest, that it was impossible for any of the men to escape, except those in Perry's and Bolton's gangways. As corroborative of this opinion, it may be stated that Mr. Perry, who drove the gangway and knew the connections better than any other man, lost his life while endeavoring to guide the people from his gangway to a place of safety. However, sixteen persons escaped from Perry's and Bolton's gangways under the guidance of drivers and runners.

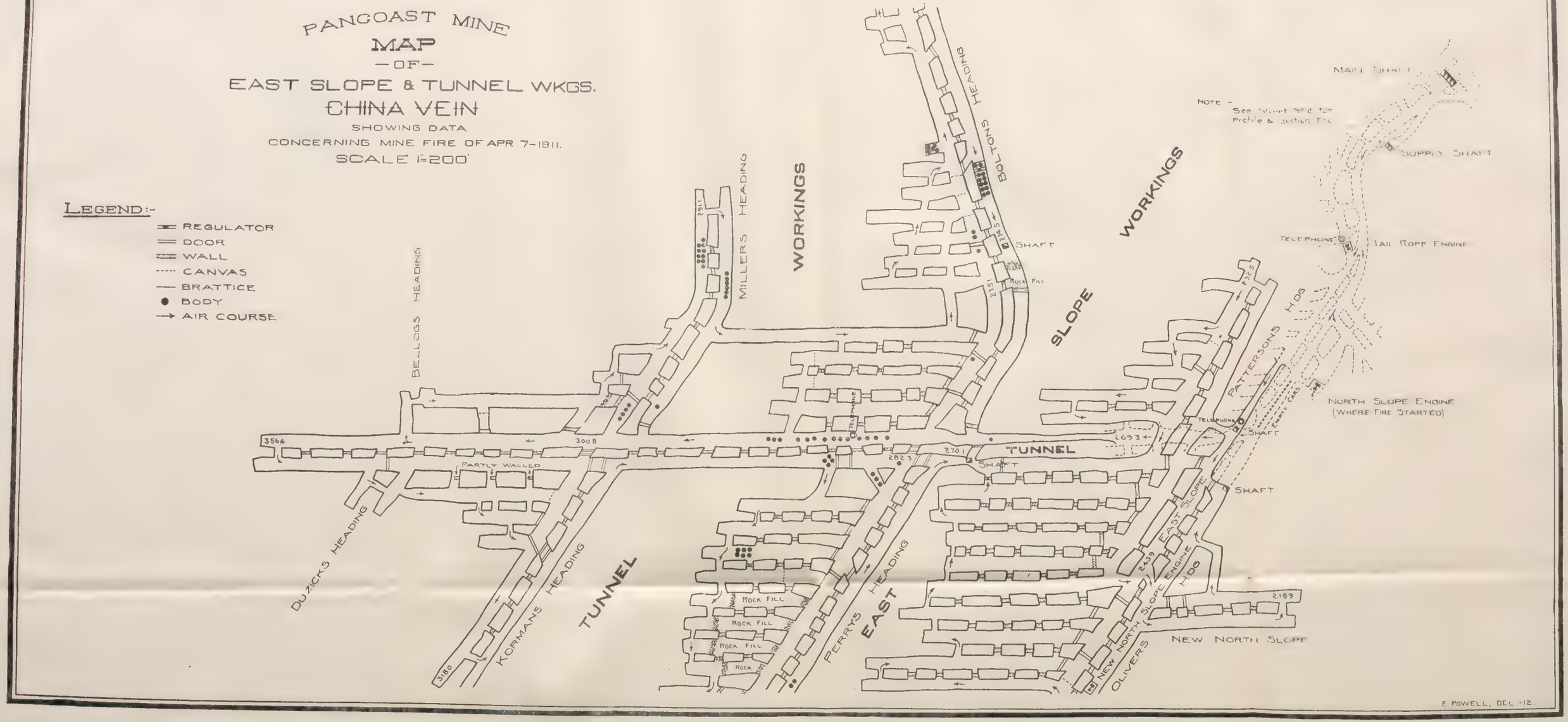
A few of the jurors at the inquest criticised the method of fighting this fire, but they did so without cause. It is very easy to criticise, but if the critics had been there it is hardly probable that they could have used any better method than that employed by Superintendent Birtley. The fire was extinguished, unfortunately too late to save the lives of other persons in the mine; but these persons could not have been rescued in any way after the fire was discovered. Even if the fan had been stopped, as suggested by a juror, the heat from the fire would have created a sufficient volume of air to carry the poisonous smoke from the burnt wood and coal to the men.

Ordinarily about 25,000 cubic feet of air per minute entered the tunnel, and it can be assumed that the heat from the fire increased that amount, so that 50,000 cubic feet of poisoned air per minute passed into the tunnel. Assuming the area of the tunnel to be 60 feet, the velocity of the air would have been about 800 lineal feet per minute, which means that the air traveled at the rate of a mile in about 6½ minutes. That being the case, how could any of the persons (except those in Perry's or Bolton's gangways who were notified of the fire by telephone) have escaped, or how could any person from outside have given them any assistance? Even Harvey, the man that received the telephone message, lost his life while endeavoring to notify his co-employes of their danger. Men could not breathe the poisonous-laden smoke from the burning coal and wood and live more than a very few minutes.

A great deal was said about there being no second openings from this tunnel; that the opening was merely a blind tunnel. Upon seeing this statement in the newspapers, I made a personal investigation of this particular place and found two second openings or avenues that the men could have escaped through if they had had a chance. However, while these second openings were probably not up to the re-

PANGOAST MINE
MAP
— OF —
EAST SLOPE & TUNNEL WKGS.
CHINA VEIN

SHOWING DATA
CONCERNING MINE FIRE OF APR 7-1911.
SCALE 1"=200'

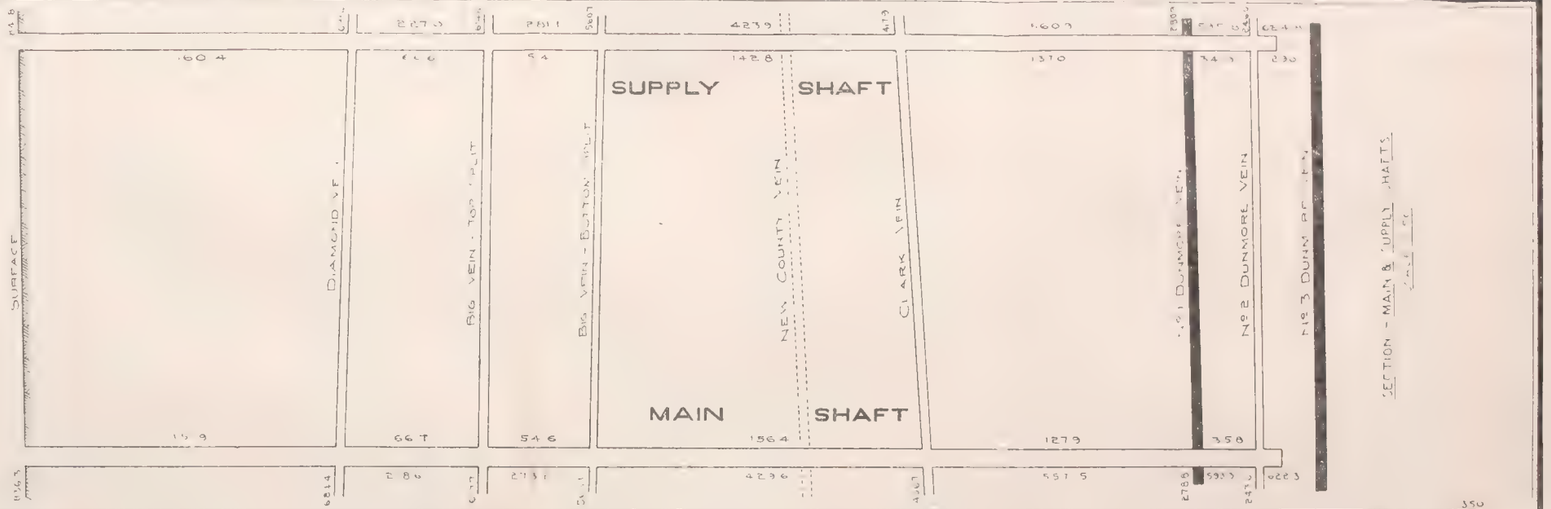


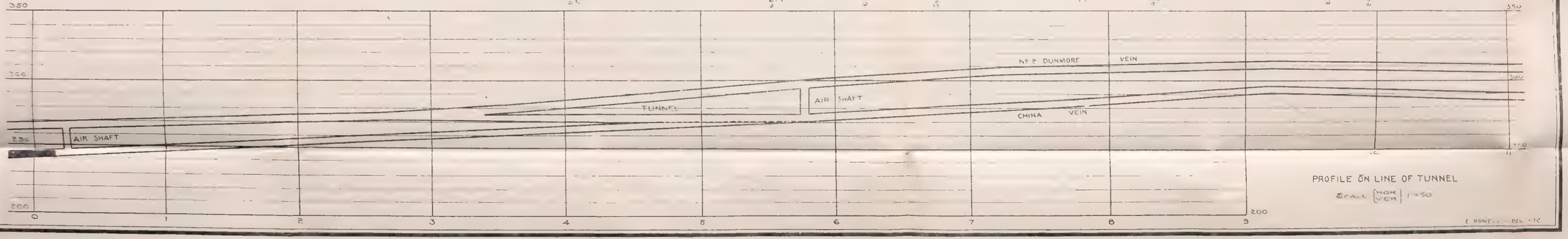
E POWELL, DEC -12.

SHEET No 1

them were burning and some were not. I said, 'The best thing we

To Accompany
Pancoast Mine Map
Sheet No 1





SHEET No 2

quirements of the law as being always safe and available, no loss of life can be attributed to their condition. Even if the victims had been instructed how to escape, in case of accident by a gas explosion or a mine fire, none of them could have reached the second openings through the poisoned atmosphere, except those from Perry's or Bolton's gangways. Under existing conditions, when the engine house took fire the fate of a majority of the men in the China vein was sealed.

The second opening through the East slope was available to the employes in Perry's and Bolton's gangways and was a safe outlet to those who made their escape without delay. It was not, however, available as a safe outlet to the other employes, because they were unable to reach it through the poisoned atmosphere. The openings to the vein above would have been available as a safe outlet from a cave-in or possibly a slight explosion of gas, but in this instance they were useless, as they could not be reached in time.

The accident at the Pancoast mine has been the means of calling the attention of the Legislature to the danger of fires in coal mines and will and has brought about the enactment of measures that will, no doubt, do much to prevent the recurrence of such accidents.

A synopsis of the testimony of the witnesses at the inquest, which continued for a period of eight days, is given herewith, together with the report of the inspector of the district, the report of the coroner's jury and the verdict of the jury.

TESTIMONY OF WITNESSES AT INQUEST

David Birtley, superintendent of the Pancoast colliery, testified in part as follows: "On the morning of April 7, 1911, I was sitting in the mine office, at about 25 minutes to 9, when the headman came in and said, 'Mr. Birtley, you are wanted inside in the Dunmore vein.' I said, 'All right.' I jumped up, the cage was waiting, and I got on the cage and went down. When I reached the foot of the shaft the footman said, 'Mr. Birtley, the North slope engine house is on fire.' I rushed in of course. When I reached the engine house I met Leo Winters, I think, and said, 'Leo, have the men been notified to come out?' He said, 'Yes, John Evans has gone to the West slope and notified the men, and Walter Knight and the fire boss have gone into the tunnel.' With these facts before me I pitched for the fire. They had one stream of water on the fire at that time, and we got another stream on it from another plug and shortly the fire began to diminish in the engine house. In the course of about half an hour, or it may be a little longer, we got the fire under control.

I was then at the engine, and Henry Simpson and, I think, William Baker were putting out the fire in the little alley that leads from the engine house to the gangway where the cars were standing on the passing branch. I went out of this passageway towards the road that leads to the North slope. There I met the driver boss and said, 'Leo, we have got the fire under control again. We have got it about out.' He said, 'Come here.' I went around the corner. He said, 'All those mine cars are on fire.' 'Oh,' I said, 'I didn't know that,' and he didn't know it before; and there was a stream of fire I don't know how long. There were 14 or 15 mine cars standing there, some of them were burning and some were not. I said, 'The best thing we

can do now is to get the hose from the surface, the Hose Company's hose, so as to get another stream on the fire.' So I went out and got the hose and I said to Mr. Jones, 'You better phone down for the rescue car and notify the Mine Inspector.' * * * I returned to the mine and about half past two the fire in the gangway was under control.

The engine house had been there eight years. We had a fire plug at the engine house, with 1½ inch hose attached, with water always on. The hose was tested every morning by the engineer. We had two other water plugs and hose convenient. We had 30 or 40 men fighting the fire. We had all the men that could work at the fire, and all the men needed for standing props.

We got the water to fight the fire from a three-inch pipe connected with the tank on the surface to the foot of shaft. There it was reduced to a two inch pipe and conducted along all the gangways and a branch opposite every or nearly every chamber. We had about 1,600 feet of one and one-half inch hose in several gangways; at about every 500 feet we had a roll of hose always ready for an emergency. We could have used four hose on this fire, but on account of the limited space two hose were all that could be used to advantage. We had great pressure, about 800 feet, the depth of the shaft. No person could go in past the trap-door on Perry's heading to notify the men to come out on account of the dense smoke which would be fatal to breathe in a few minutes. Henry Simpson and George Simons were the two men that discovered the fire first."

James J. Moran, engineer at North slope, testified in part as follows: "I am the engineer for both the China and Dunmore veins. The morning of the fire, the rope rider, James Caswell, and I came in together to the engine house. I opened the cupboard and gave Caswell a lamp full of oil and lit the lamp in the engine house. I just ran down one trip that morning and pulled it back up. I then looked around and saw everything was all right and I turned down the lamp and started for the other slope engine. In about half an hour or so I started to smell smoke, and in about five minutes more I started back to the north engine house and found it full of smoke and on fire. But before I reached the engine house Frank Shantis told me the engine house was on fire. I couldn't get into the engine house on account of the heat and smoke. I saw Micheson, the engineer, at the tail rope where the telephone is. He said that he had telephoned to the men in the tunnel to come out."

Engineer Moran was emphatic in stating that he didn't throw any matches or anything else around that caused the fire at the engine house. He said that he was told that Hank Simpson saw the fire first.

George Simons testified in part as follows: "I am a company man and do odd jobs all over the mine, or rather in the Dunmore vein where the fire was. When the fire started I was inside about two hundred feet from the fire towards the tunnel. My butty said, 'Do you smell anything?" I said, 'I smell something burning like rubber.' Then after a little while I said, 'I believe that is a brake band kind of hot.' In five or six minutes I saw the big smoke coming, so we started out through the smoke from the engine house. I ran as fast as I could to the other engine house and told a fellow named Micheson to telephone up to the mountain to get the men out as quick as possible.

He asked, 'What is the matter?' I said, 'The engine house is on fire.' After that I went back to get the hose to try to put the fire out. Hank Simpson, my butty, and myself were the first two to fight the fire. Then Parfrey came and a fellow named Croup and his butty came, and I don't know who else came after that. At this time it was about a quarter to nine. Mr. Birtley came in, but I can't say what time he came in. When I first saw the engine room it was full of blaze and smoke, and the blaze seemed to be right on the floor. I passed the cars on the branches; I believe there were 12 empty cars on one road and possibly 15 loaded cars on another road. I passed between them and went right out to the tail rope engine house. I am not sure whether the engineer telephoned to the office or not, but he went to the telephone, as I left at once to get the hose on the fire. Simpson and myself carried the hose, which was in 50 foot lengths, to the water plug, which was about 400 feet away from the fire. We couldn't connect with the plug in the engine house on account of heat and smoke. It took us from ten to fifteen minutes to make connections and get water on the fire. I first saw the fire about 8.35." In answer to the question, "You saw what was on fire?" He said, "Yes, sir, and it was dangerous for everybody inside of it. Nobody could get in through that with safety to get the men out. The smoke was too strong. I saw Knight and Dawes going in, but it was before we smelled the smoke and they knew nothing of the fire then."

William Micheson testified in part as follows: "I am the tail rope engineer. About half past eight that morning Henry Parfrey came and told me to telephone to the tunnel workings that there was a fire in the North slope engine house. I telephoned the old nipper tending gate on Perry's heading that he should get John Bray and see if the mine foreman was inside; that they should tell the men to get out as quick as they could, as there was a fire in the North Slope engine house, and he answered 'All right.' I then went over to where the fire was and met Leo Winters, the driver boss, who told me to telephone for Mr. Birtley, which I did right away. I phoned Mr. Birtley right after I phoned to the tunnel. The telephone to the tunnel was always in good condition, as we had to use it as high as a dozen times a day, and often more, to see whether the coal in there would be ready to be pulled out. The telephone has not been out of order for a year and a half, since I have been working there."

Harry Simpson testified in part as follows: "I am the pipe line man. On the morning of the fire while on our way out from the tunnel junction we smelled smoke. 'There must be fire somewhere,' I said. My partner said, 'No, I don't think so; it is the brake band. They use graphite on that and in running you can smell it.' I said, 'No, it isn't that; it smells like rubber and I will go back.' He said, 'All right. I will go back too.' We started down the branch; the smoke was pretty strong. We got by there and reported; gave the alarm. The first men I saw were Leo Winters and Hank Parfrey. I told them that the North slope engine house was on fire and that they should go to the tail rope engine house and telephone the men to come out."

Henry Parfrey testified in part as follows: "I have been employed at Pancoast six years. My duty is to attend the junction for the tail rope engine. That morning I met George Simons coming down the tunnel road. He said, 'You have a fire here,' and we said 'Where?'

At that time Leo Winters was coming up the foot branch, and he said, 'In North slope engine house.' Then Leo and I ran in, but couldn't get there on account of the smoke coming down from the water level branch. Simons told me to go and phone to Bray to get the men out right away, and I did so. Jake Bray came to the phone. He asked me what was the matter. I told him there was a fire in the North slope engine house and to go and get the men out. He said, 'There is always something the matter.' I went back to the fire then, and by that time they had the hose connected and we started to fight the fire. I telephoned from the tail rope engine house; it was about eight o'clock, as we had three trips then up the plane.

F. G.Wolfe testified in part as follows in answer to questions given by juror Blewitt: "I am chief engineer of the Pancoast Coal Company. The surveys are made by our mine corps; the notes are sent to the office; there they are calculated, checked and plotted on the map. As soon as the plotting is completed I go over it myself on the original map. The Dunmore No. 2 vein, which lies immediately above the China, has almost completed first mining; the China vein lying so close beneath the Dunmore No. 2 it is necessary that each chamber in the China be driven directly underneath the chamber above it, and that each pillar be placed directly above the pillar underneath that in order to keep up the roof and mine the coal." In answer to a question he said. "The distance that Moran had to travel between the two engine houses in which he worked is 1,450 feet."

Thomas Cook testified in part as follows: "As a rule I am rope and pulley man, that is, company man. The first thing that morning my butty and I went to the plane and while going towards the tunnel a car got off, so we helped to put it on. Just at this time Walter Knight and Isaac Dawes came along and they helped us to put the car on the track. Then they went into the tunnel, and we fixed one pulley, and I went to the old engine house for two more pulleys. When I got there a fellow called Crannbow said, 'There is smoke down there, Tom.' As soon as he said that I ran down to the East slope, and found the smoke was coming over the dip back out from the tunnel and going down the slope. I said, 'My God! the tunnel men must know about this or they will be lost.' I ran to the engine room and said to Micheson, 'Phone into the tunnel; Knight has gone in there and phone to him to get the men out; there is a big fire.' Micheson said, 'I have notified them in there.' He must have telephoned because my boy who was in there said they had a telephone message." In answer to the question, "Your boy said he got a message from Micheson?" he said, "Yes, sir. They got the message and got out, or they would be there."

John Wrobel testified in part as follows: "I am a miner's laborer; the miner's number was 280. I worked in Perry's gangway. On this morning a runner came with the driver and said it was 'all over.' That means quit work. One of the men that said 'all over' was Arthur Gresham. I think it was half past eight or nine o'clock when we were told 'all over.' There was plenty of smoke, but always more coming. We were told by a runner named John Mahalki that the engine house was on fire. We sat down in the airway about half an hour; then with other fellows went out."

Arthur Gresham testified in part as follows: "I am a driver in the China vein in Perry's gangway. I was up in the heading and a driver named William Kerris came running up and said it was 'all

over.' After a little while the runner came running up and said, 'Hurry up and get the men out,' and we got the men in a row, and went in the heading and got Perry and he led us down that way as far as the smoke and he left us. So we went back to the heading again and we went down the manway again, down as far as the smoke. We came up again, and couldn't go up, and we went up again and down the manway to try to get out; went up around and down again, and tried it for the fourth time. We rushed through it some way; I don't know how we got through. We were only notified by the runner, who was down at the branch, and the smoke came down on him and he came running up. Then we called, 'Come, hurry up, miner, laborer, come down; there is something on fire, or you can't get out.'"

John Mahalki testified in part as follows: "I am a runner in Perry's gangway. About half past eight, while eating, this old man the nipper, his name is Mike, came up and said, 'John there is lots of smoke here.' Then I got up and looked and saw the smoke right behind me. I asked him, 'Is your gate on fire, Mike, or any canvas anywhere on fire?' He said, 'No.' 'Well, what is the matter?' I said. Then he told me that a party telephoned that the engine house was on fire. When he said the engine house was on fire I stopped a driver, who was about 100 feet from me, and told him to go up and tell all the men it was all over. I then went through the slope to the telephone to find how we could get out. I tried the phone three times, but got no answer. I then went to Jake Perry and told him there was lots of smoke, and I said, 'Jake, you take us out; you know the way.' So we went down the airway, the bottom of the airway, where there are two trap gates from the airway into the branch again, and he took us all into that smoke. I stayed behind. I wouldn't go in, but all the others went in. I called on them to come back. In about five minutes they came back. I said, 'Come on, boys, let us get out.' Then we met two drivers running from the East slope. I asked, 'Do you know the way through here?' They said they did, but that they were afraid to go that way on account of gas. I said, 'You may as well die of gas as of smoke.' We kept the lights down as low as we could while going through a cross-cut to a chamber and found a miner and laborer at work. I said, 'Drop your tools and go out.' We went down through the chambers, got on the main road, and Joe Gall, the runner from the East slope, was there and directed us through. We went to the East slope and had to go through a little smoke. We went up the slope and then beat it to the foot of the shaft. As we got to the foot Mr. Birtley came down the shaft. That is all I know."

Leo Winters testified in part as follows: "I am the driver boss. I was sitting near the tail rope engine house about half past eight, I think, when Simons and Simpson came out hollering 'Fire! the slope engine house is on fire.' So we went up to the engine house and tried to get to the hose connection in the alley way leading to the engine house, but the smoke was coming out so strong that we couldn't get to it. So I sent word to the tail rope engine house to get the men out. Mr. Birtley came in about nine o'clock, and asked me if the men in the tunnel had been notified and I said they had been notified by phone. The engineer came in shortly after I sent him word, and I asked him if he had got an answer over the phone, and he said he had got an answer

from Mike Kozey. The engineer's name is William Micheson, and he came to the fire before Birtley came in. I worked all day putting out the fire. I started to help take the bodies out at half past seven in the evening and remained until they had all been taken out, about ten or eleven o'clock the next day."

Mike Kozey testified in part as follows: "I am a nipper (door tender), tending to the doors and also tending to the telephone in case anything was wanted. I went to Perry's road to find if the trip was ready, and saw Jack Bray run to the telephone, and then from the telephone he came and told me there was a big fire and that I should run to Perry's road and tell all the fellows to look out for the fire. I went and told the runner, John Mahalki, to hurry and tell all the miners to go out, that there was a big fire, and I went back to the door I was tending, but there was too much smoke. I was within ten feet of Bray when he was talking over the phone and all I heard him say was 'All right.' Bray went to the mountain to notify the other men. When Bray told me to notify the men you could hardly notice the smoke, but later it came in big volumes. After that we went to Jake Perry's heading, and there found four miners, three laborers, two nippers and two drivers. We were all in a group, but without a light, and a miner by the name of Rubal gave us oil. Then we went to the airway where Jim Reed has a gate (a trap door) or a door or something tending." Then he explained how they went out, about the same way as the others did.

Paul Bright testified in part as follows: "I am a mine foreman in the upper veins called Diamond Nos. 2 and 3. About twenty minutes to ten in the morning I was informed that there was a fire in the Dunmore vein. I then went down to the Dunmore vein through No. 2 shaft and was told that the North engine room was on fire. So I went there at once. I saw Mr. Birtley and he asked me to make an effort to get in to the men in the tunnel. I made several attempts, but failed on account of the heat and smoke; it was impossible to go and live. It was then about ten o'clock, so I came back and informed Mr. Birtley that I could not go in through the smoke, and then began to help fight the fire to get it out as quick as possible, and I employed the men around there to stand timbers, to keep every one safe while fighting the fire. After the fire was out we went into the tunnel and soon after entering we came to the body of Dawes, the fire boss, and then we went right on in the tunnel until we came to the body of Knight, the mine foreman, half way between entrance and bodies of dead; then we retreated back to the foot of the shaft." Then he recited how they got the bodies out.

REPORT OF INSPECTOR

This disaster occurred on the morning of April 7, about 8.30 o'clock. A fire in some way was started in the North slope engine house in the No. 2 Dunmore vein and the flames were communicated to the props and double timber and a trip of twenty empty mine cars standing on the head of the slope along side of the engine house on the intake airway. Two streams of water were immediately brought to play

on the fire and the men inside of the fire were notified as soon as possible, but the smoke from the fire was carried to and through the tunnel that was driven from the No. 2 Dunmore vein to the No. 4 Dunmore vein, or China vein, before the men could make their escape through the second openings. The result was that seventy-two of them were overcome with the smoke from the fire and died before the fire could be extinguished. The fire was under control at 2 p. m., of the same day. I was away from home at the time and did not hear of the fire until late in the afternoon. I arrived at the mine at 4 o'clock in the afternoon and found several officials of other coal companies there along with the Government First Aid Corps.

I at once went into the mine with Superintendent W. L. Allen of the Scranton Coal Company, Superintendent Henry G. Davis, Assistant Superintendent Henry E. Harris, and William E. Watkins of the Delaware, Lackawanna and Western Railroad Company, Daniel Young, District Superintendent of the Scranton Coal Company, and Superintendent Joseph V. Birtley and Mine Foreman Paul Bright of the Pancoast Colliery. We found that Joseph Evans of the Government Rescue Corps was overcome by smoke while trying to rescue some of the men and Doctor J. E. Jacob and myself and some of the Government Rescue Corps worked continually on him for over an hour and a half trying to save him, but he had inhaled too much of the smoke and could not recover. He died without regaining consciousness.

We then proceeded down the slope and through the East tunnel into the China vein to search for the bodies of the unfortunate victims. The first body was that of Fire Boss Isaac Dawes, who was found on the main gangway road just inside of the tunnel and about three hundred yards from the burning engine house, with his face pointing outward as if in the act of coming out to see what was wrong. The body of Mine Foreman Walter Knight was found in the middle of the track at the extreme end of the main gangway road with his face pointing inward indicating that he was trying to reach the men who were working on the inside end of the gangway. Twenty-one victims were found in one group in the middle of the gangway junction of Perry's gangway all with their faces pointing outward indicating that they all fell while trying to escape. The others were found along the different gangways right and left of the main gangway road. After finding all of the victims we at once organized several parties of men with stretchers and blankets and proceeded to carry out the dead. Those that were identified were immediately taken in charge by the different undertakers and prepared for burial. The unidentified were taken to the carpenter shop on the outside which was turned into a temporary morgue and laid side by side until they could be identified by their families or friends. At 7 o'clock the next morning all of the dead bodies had been taken out of the mine. When the recovery of the bodies had been completed, little work was required to put the mine in condition for operation, except cleaning up the roof that had fallen when the supporting timbers burned away and removing the remains of the twenty mine cars that were left but a twisted mass of iron. I notified Doctor James F. Saltry, Coroner of Lackawanna County, by phone, Sunday morning, April 9, to proceed at once to hold an inquest to ascertain who, if any, was at fault.

REPORT OF CORONER'S JURY

To James F. Saltry, M. D.,
Coroner, Lackawanna County, Pa.

Dear Sir:—

The Coroner's Jury empanelled to investigate the cause of the death of seventy-three persons in the Pancoast Mine of Price-Pancoast Coal Company, Throop, Pa., on the morning of April 7, 1911, beg leave to report as follows:

Immediately upon being sworn we endeavored to gain entrance to the mine to familiarize ourselves with the various lifts of the China vein and that portion of No. 2 Dunmore vein, wherein the fire occurred in the engine house which is directly responsible for the death of the men from smoke. Our desire in this direction was not gratified for the reason that the fan was out of condition and under repair. As soon as the fan had been adjusted and in working order, we again visited the mine making a thorough examination of the site of the burned engine house and the surrounding headings and airways, besides visiting on the same day, the tunnel leading from the No. 2 Dunmore vein to the China vein; Perry's and Bolton's headings; the East slope and the North slope and the second engine house at the head of the North engine house. This visit did not enable us to inspect the entire mine, so we subsequently returned and examined all the other portions of the China vein not explored on our former visit.

Between these visits to the mine we began the taking of testimony in court room No. 2 in the Court House in the City of Scranton, Pa., and were continuously at work every day, either taking testimony or examining same from stenographic notes. We feel that we made as thorough investigation of this accident as our ability would permit and if we failed in any respect, it was not in any way due to inactivity or lack of binding obligation to procure all the facts pertaining to the case.

The accident was an unfortunate one, serious beyond all comprehension and the greatest which has occurred in the Northern Anthracite field in over a generation. We cannot refrain from saying that we believe the loss of life might have been much less serious, or possibly all the men might have escaped if an engineer had been stationed permanently at the engine house where the fire started. As to the fire itself the officials of the company maintain they did not think it would be serious and that they could extinguish it in a comparatively short time, without injury to the men or loss of time to them or the colliery. Subsequently, however, it proved their error of judgment and as a result the men probably went to their graves through the overconfidence of the management who did not realize the seriousness of the situation.

It has been contended by many witnesses that the fire had been burning quite a length of time before it was discovered and that in all probability many, if not all, of the men were dead before it was extinguished. Be this as it may, the fact remains that the jury can-

not condone the apathy of the management in centering all their efforts on the fire instead of also immediately notifying all the men of their danger when the fire was discovered. We are also of the opinion that the fire might have been fought on entirely different lines with better results from the gangway side and that if such had been done, the loss of life would not have occurred, or in any event would not have been so serious; this mistake was a serious one.

The investigation of this terrible catastrophe has impressed the jury that the mining laws are lax. Here is a mine which old and experienced mining men and mine inspectors swore was the best managed and laid out colliery in the valley, practically complying with the letter of the law; nevertheless, this catastrophe has proven that the mining laws are inadequate and susceptible of many necessary and vital amendments. We are convinced that sufficient inspection was not given this mine by the constituted state representative, namely the mine inspector.

It appears to us from our investigation that many innovations may be introduced for the health and safety of the men employed in and about the mines with but little cost and great permanent beneficial results. We suggest the Governor recommend to the Legislature without delay, or call it in special session, for the enactment of a law or laws, which will compel the elimination of all combustible buildings or material, including coal oil or kerosene lamps in engine rooms and pump rooms, in all coal mines or collieries; that the engineer at every engine house in or about a colliery be compelled to remain on duty continuously during his day's work; that steel mine timbers should be used wherever directed by the mine inspector; that the number of competent and aggressive mine inspectors should be increased to guarantee inspection and enforcement of the law; that they should be selected from those holding mine foreman certificates and elected on a nonpartisan ballot by the qualified voters employed in and about the Anthracite mines; that telephones be used in all the mines and that the wires of the same be extended to the most remote parts of the mine wherein men are employed; that danger alarms and danger signals be erected for the further safety of the men; that there be employed in each vein at least one man to superintend these devices and keep them in constant repair, besides being compelled to make the men working in the lifts of the veins familiar with their object and their general application and that this employe also be authorized to compel all new employes to familiarize themselves with ways of exits in case of disaster; that every colliery should have relief corps, each member of which could be conveniently called to a central point in a minimum time, to take charge of mine in case of accidents and offer relief and succor to the injured or those who might be in imminent danger of loss of life through such catastrophe as the above and that the Department of Mines insist on its inspectors doing their full duty under penalty of immediate dismissal, and exercise a more rigid supervision over their conduct.

Verdict of the Jury

The verdict of this jury is, That John Baravalla, Louis Korman, Lawrence Reitz, et al. came to their death on the morning of April 7,

1911, through inhalation of carbon monoxide, the direct cause of which was the burning of a hoisting engine house at the head of the North slope in the No. 2 Dunmore vein of the Pancoast colliery, the flames from which communicated with contiguous timbers in the entrance to the engine house and communicated from thence to the roof supports and cars in the main haulage way, causing vast volumes of smoke to be driven into the China vein by the great velocity of the air current from the fan. We declare that the cause of the fire is unknown and have no hesitation in saying that we believe overzealousness of the management to put out the fire in the engine house, and forgetfulness to a degree for the safety of the men in the mine contributed largely to making this accident so appalling.

Edward F. Blewitt,
Foreman of the Jury.
Enoch Williams,
Robert Gillard,
John P. McDonough,
William E. Lewis,
James Grady.

Scranton, Pa., May 8, 1911.

MINE FIRE AT THE GIPSY GROVE BREAKER

A very unusual accident occurred at the Gipsy Grove breaker. A coal chute in the breaker caught fire in some unknown way and two of the employes at the top were killed. As several other persons were at the top when the alarm of fire was given and made their escape, it is presumed that the men who lost their lives could have escaped also if they had availed themselves of the opportunity afforded them and not delayed too long. An inquest was held in connection with the accident at which many witnesses were examined.

Some of the testimony is given herewith, together with the report of the Inspector of the district, the report of the Coroner's jury and the verdict of the jury.

TESTIMONY OF WITNESSES AT INQUEST

John Taylor testified in part as follows: "I am the hoisting engineer at Gipsy Grove mine and have been since 1871. The first I heard about the fire was when the headman, Michael Walsh, whistled down and said, 'There is a little fire down in the breaker somewhere.' I walked to the window and saw some smoke away back at the rear end of the breaker. I looked on possibly a minute or two, and telephoned down to the footman, 'You may as well take the car off the cage and come up to the landing with the other footman, as there

was a little fire in the breaker, not much, and they should not get excited.' He said, 'All right.' While waiting two, three or four minutes for the footman to ring to me, he had already rung that he was going to get the men out, somebody whistled from the head to let them down. I said, 'All right, boys! Just as soon as I get the bell from the bottom.' So I waited probably not half a minute, when they whistled again to send up the cage. I said, 'All right,' and rang down to the footman, and while I was ringing to the footman, the headman and two or three others ran in. The headman said, 'It is all up;' another hollered that I should tell the men in the mine to get out the other way, through No. 1. I called then on the men in the bottom vein, and again to the men in the second vein; then called to the men in the top vein that they should go out through No. 1. By the time I got through talking to the men in the mine, the whole thing was in a blaze and I had to clear out myself. In my opinion, from the time I was notified of the fire, it was not more than five or six minutes before the fire reached the head house."

Floyd Munson, the outside foreman, testified in part as follows:

"About 4.15 P. M. one of the men ran and told me that the breaker was on fire, and I ran and hollered to the engineer to have him whistle that the breaker was on fire, and I went on with the rest of the boys and got the hose, started the water on, and we ran it, I should judge, about three or four minutes, when I saw the fire was getting the best of me; and then I ran and told Mr. Taylor, the engineer, to notify the men in the mine that the breaker was on fire. When I used the hose I hollered to the headmen, Dykes and Early, (they stood at the window) that the breaker was on fire, and as I saw four or five of the headmen come down, I thought Dykes and Early had come down along. One of the headmen, McHale, came down and helped with the hose. There was only one hose connection on the ground, with 150 feet of hose in three lengths of 50 feet each. There was another hose connection in the breaker, and about 80 common fire extinguishers in the breaker and there were men trained to handle them; besides, there were nine barrels of water inside the breaker. There were nine men working on the top and seven of them escaped; they walked down the steps. The men that lost their lives could have escaped, as the other men did, had they started in time."

Harry Miller, weighmaster at the top of the breaker, testified that he had worked as a weighmaster at Gipsy Grove about one year, and that he was not at work on the day of the fire. He said: "There were five exits from the head of the breaker. I knew four of them, that is, besides the trap door. There was one down along the lump coal chute, one on each side of the screen room; the other way was down by the cage in the shaft. I considered all of these exits in case of emergency such as this fire."

Michael Walsh, a headman, testified in part as follows: "While I was working I saw two men running to the breaker, and I asked Tony Battiste what was the matter. He said 'Fire.' Tony pushed a car off the cage and ran over to the hose, and I told the hoisting engineer that we would not be ready for a little while, as there was a fire somewhere outside, but I did not know where. Then I went to the office to see John Dykes and was going back to the shaft to get

two pails to help quench the fire. When I was running back to the office young Stephens came up and hollered 'Mike! Mike! let us down!' I then telephoned the engineer to let us down, and the engineer hoisted the cage off the fan, and we all got on the cage. No sooner did we get on than we had to get off again, as the fire came on us. We all ran to the window, and three of us got stuck in the window. I caught a timber and pulled myself in and climbed down on the timbers inside the breaker and down to the ground. I never thought of the trap door, as I was very much excited. From the time we heard of the fire until we tried to get through, I think it was no more than two minutes."

John Dykes testified in part as follows: "I was weighing coal that day on the head, and I heard a little excitement outside and looked out of the window and saw Floyd Munson and Charley Engle pulling out the hose. I said to John Early, 'I believe there is fire somewhere.' Both of us stepped out of the door and around the corner, and we could see a little smoke rising from the lump coal chute. I said, 'John, we will take our sheets down in case there is a bad fire.' So we grabbed our sheets off the table when Harry Stevens ran up and said. 'Come on! The place is on fire.' We all rushed to the carriage waiting for us and the headman gave the signal. The heat was so strong we were driven off the carriage towards the window where three of us got stuck. Then John Early, Battiste and I turned around, and as we did the fire took our breath away. So I followed John Early, who was trying to screen his head by a board, and then saw Battiste fall back against the shaft and let himself fall on a trap door there. I then caught hold of the shaft rope, and put my legs around and slid down until I struck the carriage at the foot of the middle vein and rolled off. My head and hands were badly burned and I was choked up with the smoke. With others I went out through No. 1. I knew of the trap door and had gone down that way, but as the carriage was there I naturally thought it would be the best way to go down. I was familiar with the fire apparatus in the breaker and was a member of the fire company."

Gerald McHale testified in part as follows: "I run the engine on the head. The first I knew of the fire, I happened to look out of the window and saw a railroad conductor run into the office. The men there ran over to the pump house and started to pull out the hose, and at once I saw some smoke. I ran over to the barrel and filled a water pail and ran down to the fire and threw it on. By that time the fire started to rush in on me, so I went down the steps to the ground and started up through the breaker, up the other way, to help pull out the other hose in the screen room. When I got into the screen room, I couldn't go any farther, as the smoke was rushing in on me, so I had to turn around and go to the ground again. I did not notify the men at the head of the fire when I saw it first, or they could have gone down as I did, but I didn't think the fire would amount to as much as it did."

Harry Stevens, oiler, testified in part as follows: "I was sitting in the shanty looking out of the window and heard somebody holler 'Fire!' on the outside, and I ran down and got a pail of water and ran on the roof and threw the water on the roof. Then there was only a little blaze. All at once it shot up and drove me back off the roof, and I ran into the plates, and as I was going up the steps I met Tony

Mack and I hollered 'Tony, go back.' We all ran back and the fire was right after us, and we got on the cage and Mike Walsh gave the signal to lower the cage, but the engineer didn't let us down. We were on the cage about twenty seconds when we were driven off by the blaze. We then ran for the window and Mike Walsh got out first. I hollered to Tony Mack to get out of the way and I jumped out of the window head first. I am sixteen years past."

Tony Mack testified in part as follows: "I am sixteen years of age. I pushed the truck on the head. When the fire started I was at McHale's engine until some one, I think it was McHale, ran for a pail of water; so he hollered to me 'Fire!' so I ran to the hose and turned the valve. Then I saw smoke and flame coming and Harry Stevens came and said: 'Come on back, there is a fire!' So Mike Walsh called us back to the carriage. He phoned the engineer to let us down and he said 'All right,' but the cage didn't move. Then Walsh said: 'Come on, Tony; let us jump out of the window.' I followed him and we got stuck in the window, two or three of us, and we had to jump to get out."

David Gilgallon testified in part as follows: "I am the breaker engineer at Gipsy Grove. Some one came to me and told me to blow the whistle for fire. I blew the whistle five times and I could hear the whistle just as plain as I ever heard it. I don't know how soon after the fire started I blew the whistle, but I blew it when Jerry McHale notified me and he is one of the employes at the head. I have been a breaker engineer here for fifteen or sixteen years and am well acquainted with the lower part of it, but am not familiar with the head house part."

Jacob Gromlich testified in part as follows: "I am the foreman at No. 1 breaker and happened to be on the outside and I saw a little fire there, and I telephoned to No. 1 shaft that Gipsy Grove breaker was on fire, and then went up to Gipsy. The fire was pretty well under headway when I got there. The distance I covered was about 2,500 feet. By the time I reached the breaker the hose was burned and there was no water being put on the fire."

Dominic Lally testified in part as follows: "I used to drop light cars and weigh them. On this day I was at my work weighing cars when somebody hollered 'Fire!' and George Engle came and said, 'Munson, there is fire in the lump coal chute.' We ran for the hose in the pump house. When the hose was stretched, Munson said, 'Lally, you take hold of the hose, and I will go over to the engineer and tell him to stop the breaker and blow the whistle,' and in about a minute afterward I heard the whistle blow. The water was on in about two minutes after we discovered the fire."

Seth Watrous testified in part as follows: "I am a carpenter at Gipsy Grove. I was down at No. 1 shaft when I saw the fire in the lump coal chute. I went over to the breaker at once, but it took me possibly ten minutes to walk that distance, and when I reached there the fire had reached the head. There was no water being put on when I reached the breaker. The hose had been burnt."

In answer to a question, Watrous said: "There are four pairs of stairs going down out of the breaker that I know of, besides the carriage way. There was one at the lower end of the lump coal chute, one on each side of the breaker and one down just under the plates."

Charles Engle testified in part as follows: "I am a carpenter at Gipsy Grove. I was in the shop when I heard some one holler 'Fire!' and I ran out to the pump house to help get the hose out. When I got there Munson and Lally were there. I went to the pump house and found the pump working all right. I stood watching the fire about a minute and said: 'Boys, she has got the best of us,' so I went back to the shop to gather up my tools. I don't think it could have been more than a minute and a half after I discovered the fire before we got the water on the fire."

REPORT OF THE INSPECTOR

This breaker took fire from a spark from a railroad locomotive which was passing with some loaded cars from No. 1 colliery about 4.15 P. M. Thursday, April 27, 1911. I arrived on the scene at 5.20 in the afternoon. Having gone through the Pancoast affair I was anxious about the workmen inside, but the officials assured me that the men were all safe, except two that were missing in the breaker. I noticed that the fire had burned the pump room down and disconnected the pipe line and put the pump out of commission. At that time they were working on a line of hose from the washery pump at the No. 1 colliery some distance away. I could see that there was not sufficient hose. So I went and phoned to Chief H. F. Ferber of the Scranton Fire Department and asked him if he could send me some hose. He very kindly responded by sending three of the men of the Scranton Fire Department and three thousand feet of hose with instructions that they were to remain at the fire until they were discharged by me. We worked all night and got the fire out near the opening to the shaft. With some of the mine officials I then went inside to investigate the conditions surrounding the foot of the shaft, and while doing so we found some human bones in the sump, which we believe were those of Tony Battiste judging from their size. About two o'clock the next afternoon while we were investigating around the top of the shaft at the surface we came across some more human bones which we believe were those of John Early. The only way we could identify them was that Early was small and Battiste large.*

REPORT OF THE CORONER'S JURY

James F. Saltry, M. D.,
Coroner, Lackawanna County, Pa.

Dear Sir:—

We, your jury, empanelled to investigate the cause of the death of three men from a fire which destroyed the breaker of the Gipsy Grove Colliery of the Pennsylvania Coal Company in Dunmore Borough, Pa., April 27, 1911, submits its report as follows:

This jury was sworn Friday, May 12, 1911, and the following day, Saturday May 13, went to the site of the destroyed breaker in company with Mine Inspector D. T. Williams to obtain knowledge as to the location of the breaker, fire hydrants, pump house, shafts and engine house and such information as would enable the jury to intelligently understand the testimony of the witnesses sworn at subsequent hearings. The jury has insistently and conscientiously endeavored to the best of its ability to ascertain all information which might enable

*Peter Clapp, headman, jumped from burning breaker at time of fire and died April 30. Early was not an employe of the company.

the jury to arrive at a fair and honest conclusion based solely upon the facts as established by the evidence of the witnesses subpoenaed and who testified in this case.

At the outset this jury unhesitatingly declares that the preponderance of the evidence plainly discloses that the three men who perished should not have lost their lives in the breaker fire; their deaths were, we believe, avoidable. As to the cause of the fire neither the officials of the colliery nor the workmen summoned as witnesses before the inquest have been able to explain. From their sworn testimony the jury has only ascertained that the fire was discovered at the end of the lump coal chute and that the flames spread with startling and fatal rapidity to the top of the breaker where the victims of the fire were employed. But the cause of the fire must be unexplained.

It has been testified by the witnesses that the fire was permitted to gain destructive headway before the customary fire alarm was sounded from the breaker engine house whistle. This circumstance, standing of itself, would point convincingly to negligence on the part of the officials.

Early, Battiste and Peter Clapp were notified of the fire and had they started from the breaker at that time they could have escaped in safety.

Verdict of the Jury

The verdict of this jury is that John Early, Tony Battiste and Peter Clapp came to their death through their misunderstanding the probable seriousness of the fire. That they were apprised of the fire in time to have left their place of work is shown by the weight of the evidence adduced at this inquest. It has been established that at least three of their co-workers employed in the same part of the breaker knew of the fire even before the fire whistle blew, and that these three co-workers escaped from the breaker. The uncontradicted testimony of John Dykes, Gerald McHale and Harry Stevens is that they were aware of the fire, and had seen it from their place of work at the time it started, and that Early and Battiste were notified of the fire and that had they started from the breaker at that time they would have escaped in safety.

The jury feels, however, that severe censure is merited by Gerald McHale for his conduct in leaving the breaker without warning his co-workers of the fire, and that Harry Stevens should be criticised for failing in a duty, which like McHale, he owed to his fellow employes.

Jury:
Thomas Genil,
W. J. Costello,
W. P. Cronin,
Thomas Allison,
John Ruane,
Patrick Murry.

MINE FIRE AT THE BOSTON MINE

The fire at the Boston mine, Plymouth No. 5 Colliery, of the Delaware and Hudson Company, May 10, was the third one to occur within a month. The first was at the Pancoast, April 7, and the second at the Gipsy Grove breaker, April 27.

The number of lives lost in the Boston mine was five. Fortunately the fire occurred on the night shift or the loss of life would probably have been much greater.

In the verdict of the coroner's jury it is said that "the fire was started by some person or persons unknown to the jury and that it was of incendiary origin." If the evidence submitted warranted this verdict the authorities of Luzerne county, through the district attorney and county detective, should spare no effort or expense to find the guilty person and see that proper punishment is inflicted, as a fire of this kind may be started in almost any mine and may endanger the lives of hundreds of employes. I am not aware that any effort has been made or is being made by the authorities of Luzerne county or by the coal company to apprehend the guilty person or persons, but I hope that some effort of that kind is being made.

To my personal knowledge this is the first fire of incendiary origin inside of a coal mine, but several such fires have occurred on the surface.

According to the report of Inspector D. T. Davis, the fire occurred at the mouth of man-way on Red Ash Vein Crop. "About half a dozen sets of hard wood timber, especially selected and suitably prepared, bark peeled, with lagging composed of three inch plank on top and sides over-lying the timber were used in order to prevent the clay from rushing in and obstructing the passage-way. Beyond and in close proximity to this a portion of the man-way was driven through the rock on an angle of approximately twenty degrees, which penetrated the vein. The volume of air entering through this opening, which was the in-take, was from 40,000 to 50,000 cubic feet per minute. The velocity of the current was so great that sparks were conveyed to the coal and the ignition was almost instantaneous. The products of combustion, both complete and incomplete, producing carbon monoxide and carbon dioxide gases, were conveyed with the air and circulated to all portions of 13 Vein workings. This portion of the mine is non-gaseous, but, in order to further safeguard the lives of the persons employed therein, a fire boss was on duty constantly. The east and west side of this plane was ventilated by two separate currents. Those employed on the east side escaped with much difficulty as the smoke entered the workings in such a dense volume as to make it utterly impossible for them to see in what direction they were going. They were compelled to grope and feel their way until No. 8 tunnel, Top split of Red Ash Vein, had been reached and an independent current of air from a portion of the Upper Split was encountered. The persons employed on the west side of 13 plane were less fortunate, as their bodies were found in the face of Two West airway, at which

place they were engaged at work. It seems that according to the condition of the bodies, for their dinner pails were found by their sides, they must have made a great effort to reach a place of safety, but not being able to do so on account of the density of the smoke, retreated to the face of their working place, at which place their bodies were discovered.

The bodies of the driver and door boy were found on the plane, at the entrance to a lift on the east side. The officials of the mine did all in their power to rescue the victims. Several persons were engaged in making an effort to smother the fire and others were inside the mine changing the course of the current so as to send fresh air to the section of the mine to where the victims were employed.

The workings of 13 plane are so arranged that the ventilating fan, located at the main hoist shaft, about a mile from the surface entrance to the man-way, controls the currents circulating through the mine.

Doors had been erected and thrown back, so that in case of emergency they could be immediately closed with the desired effect of reversing the current in the interior of the mine. The officials and miners were greatly surprised that the fire should do so much damage in a place that was least expected, and at such a peculiar time, but the smoke, instead of gradually becoming more dense, entered the mine in great volumes, overcoming the employes who had perfect knowledge of the means of ingress and egress of this portion of the mine. In order to ascertain in what manner the fire originated, I instructed D. W. Dodson, Coroner of Luzerne County, to hold an inquest."

The following verdict was rendered by the jury:

"That the said William Anglanicz came to his death on the 10th day of May, 1911, at the Boston Colliery, D. & H. Coal Company, from being suffocated by smoke in said colliery. John Russbuski, Jacob Kurrilla, John Malast and George Fender all lost their lives at the same time and place, and from the same cause. William Anglanicz was a laborer. The evidence shows that all these deceased men were working on the night shift, and that about ten o'clock in the evening a fire broke out at the opening of the man-way, and the smoke from this fire in great quantities penetrated the part of the mine in which they were working and suffocated them almost immediately. Six men working in another part of the mine were able to work their way out through one of the other openings. The evidence shows that the said mine had three avenues of escape. The manway, through which the men made their way into the mine, has several sets of timber at the opening, and it was at this point that the fire originated. This manway also served as an intake for air. Fifty thousand cubic feet of air passed in per minute. The jury visited the mine in order to inspect it, and from this inspection, as well as from the evidence, we find that the fire was started by some person or persons unknown to the jury, and that it was of incendiary

origin. We believe that all inflammable material whatsoever should be eliminated from the mines wherever and whenever it is possible to do so.

(Signed)

Thomas J. Hatton,
John J. Boney,
James Williams,
Thomas D. Lloyd,
Wm. I. Williams,
David Phillips."

The mine fire at the Pancoast mine created such an excitement among the mining population that the legislature passed an act which I have no doubt will prevent the recurrence of such catastrophes. The act reads as follows:

"No. 788

AN ACT

To safeguard life in the coal mines of the Commonwealth of Pennsylvania, and to protect and preserve the property connected therewith, by providing that all inside buildings shall be constructed of incombustible material; and providing penalties for failure to comply with the terms of this act, and making a violation thereof by mine superintendents a misdemeanor.

Section 1. Be it enacted, &c., That within six months after the approval of this act, all buildings inside of any coal mine in Pennsylvania, including engine houses, pump houses, stables, et cetera, shall be constructed of incombustible material, approved in writing by the Chief of the Department of Mines: Provided, however, That the time may be extended by the Chief of the Department of Mines, for a period not exceeding six months, upon sufficient cause shown by any person, firm or corporation, of inability to comply with the provisions of section one as to the time therein specified.

Section 2. Any company failing to comply with section one of this act shall be subject to a penalty of five hundred dollars, to be recoverable by the Commonwealth as debts of like amount are now by law recoverable. Any superintendent of a coal mine failing to comply with section one of this act shall be deemed guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine of one hundred dollars, or undergo imprisonment in the county jail for a period of ten days, or both, at the discretion of the court.

Section 3. The fines collected for violation of this act shall be paid to the Department of Mines, and the Department of Mines shall pay the same into the Treasury of the Commonwealth.

Section 4. All acts or parts of acts inconsistent with the provisions of this act be and the same are hereby repealed.

Approved—The 15th day of June, A. D., 1911.

JOHN K. TENER."

It is the hope of the Department that on the 15th day of June, 1912, when the period of one year from the date of approval of the act shall have expired, the stables, pump-houses, engine-houses and all other buildings in the coal mines of this Commonwealth will be made of incombustible material.

CAUSES AND LOCATION OF FATAL ACCIDENTS

The records for the year show that as usual the two principal causes of fatal accidents in the anthracite mines were (1) falls of coal, slate and roof, and (2) cars. The total number of inside fatal accidents was 615, of which 253 or 41.14 per cent. were caused by falls of coal, slate and roof, and 92 or 14.96 per cent. by cars. The other causes were explosions of gas, 34 or 5.53 per cent.; explosions of powder and dynamite, 21 or 3.42 per cent.; electricity, 2 or .32 per cent.; blasts, 67 or 10.89 per cent.; falling into shafts, suffocation by gas and miscellaneous causes, 146 or 23.74 per cent.

The accidents by falls of coal occurred as follows: At face of workings, 36; at pillar work, 13; on gangways, 2; back in chambers, 5; in old workings, 1; in chutes, 1; total, 58 or 22.92 per cent. By falls of slate at face of workings, 28; at pillar work, 10; on gangways, 5; back in chambers, 6; a total of 49 or 19.37 per cent. By falls of roof at face of workings, 102; at pillar work, 21; on gangways, 13; in chambers, 4; on slopes, 1; in crosscuts, 2; in tunnel, 1; in strange chamber, 2; total, 146 or 57.71 per cent.

The total number of accidents by falls of coal, slate and roof at face of workings was 166 or 65.61 per cent.; at pillar work, 44 or 17.39 per cent.; on gangways, 20 or 7.90 per cent.; in chambers 15 or 5.92 per cent.; on slopes 1 or .40 per cent.; in crosscuts, 2 or .79 per cent.; in tunnel, 1 or .40 per cent.; in strange chamber, 2 or .79 per cent.; in old workings 1 or .40 per cent.; in chute 1 or .40 per cent.

To reduce the number of accidents from falls at or near the face of rooms, systematic propping should be adopted in every mine to suit the height of roof or slate. The foreman and superintendent should decide on the distances between props in the mines and the foreman or assistant should insist on strict compliance with the decision thus made. When this is done no person but the miner himself can do anything more to safeguard life at the face of workings, except the fire boss, assistant foreman or foreman who may happen to visit a place at a critical period and be able to warn the men of the impending danger. As the miner is alone at the face about ninety per cent. of the time during the day, he must be taught how to protect his own life. In all mines eternal vigilance must be exercised by the workmen and a close watch must be kept of all dangerous working places by the fire boss, assistant foreman and foreman.

Ninety-two persons were killed by cars, 47 of whom were killed on gangways, 18 on slopes and 27 at other places. This great loss of life is utterly inexcusable. The roads should be kept in safe condition, free of refuse and drained, and should be of sufficient width to enable persons to pass by the cars. There should also be safety holes at proper intervals. If these precautions were taken and proper discipline insisted upon, there is no reason why the accidents from cars should not be reduced one-half.

Fifty-nine persons were killed by explosions of blasts at face of workings and 8 persons by explosions of blasts at other places. Explosions of powder and dynamite on gangways and at other places killed 21 persons.

Of the accidents on the surface, 26 or 30.95 per cent. were caused by cars; 22 or 26.19 per cent. by machinery, and 36 or 42.86 per cent. by other causes. The outside accidents should also be reduced one-half.

The table submitted herewith shows the accidents in each inspection district by falls and other causes.

In addition to the analysis made of the causes of accidents inside the mines, statistics are given herewith from the reports of the inspectors relative to the number of each class of employes killed inside the mines.

The inspectors in making their reports to the Department are required to give a brief explanation of fatal and serious accidents, and to state whether in their opinion they were unavoidable or caused by carelessness on the part of the victims or on the part of others. If an accident was caused by a fall of coal, slate or roof, they state where it occurred, whether at or near the face of workings, and give the name of the vein and thickness at that point. If an accident occurs by an explosion of gas, they state the time when it occurred.

These reports show 151 miners killed by falls; 101 or 66.89 per cent. were killed at face of workings, 33 or 21.86 per cent. while removing pillars, 4 or 2. 65 per cent. on gangways, 10 or 6.62 per cent. back from the face in chambers, 1 or .66 per cent. in chutes, 1 or .66 per cent. in tunnels, and 1 or .66 per cent. in crosscuts. Of the 151 fatalities, 94 or 62.25 per cent. were due to the carelessness of the victims, 4 or 2.65 per cent. to the carelessness of others, 53 or 35.10 per cent. were unavoidable.

Seventeen miners killed by mine cars, 9 or 52.94 per cent. of whom were killed on gangways, 3 or 17.65 per cent. in chambers, 4 or 23.53 per cent. on slopes and 1 or 5.88 per cent. at bottom of slope. Of the 17 fatalities, 14 or 82.35 per cent. were due to the carelessness of victims, 1 or 5.88 per cent. to the carelessness of others, and 2 or 11.77 per cent. were unavoidable.

Fifteen miners killed by explosions of gas, 3 or 20.00 per cent. of whom were killed on gangways, 9 or 60.00 per cent. in chambers, 1 or 6.67 per cent. in old workings, and 2 or 13.33 per cent. in headings. Of the 15 fatalities, 11 or 73.33 per cent. were due to the carelessness of the victims, 1 or 6.67 per cent. to the carelessness of others, 3 or 20.00 per cent. were unavoidable.

Fifteen miners killed by powder and dynamite, 4 or 26.67 per cent. of whom were killed at face of workings, 9 or 60.00 per cent. of whom were killed on gangways, and 2 or 13.33 per cent. in crosscuts. Of the 15 fatalities, 14 or 93.33 per cent. were due to the carelessness of the victims, and 1 or 6.67 per cent. was unavoidable.

Fifty-seven miners killed by blasts, 49 or 85.97 per cent. of whom were killed at face of workings, 1 or 1.75 per cent. on gangways, 1 or 1.75 per cent. while robbing pillars, and 6 or 10.53 per cent. in headings. Of the 57 fatalities, 47 or 82.46 per cent. were due to the carelessness of the victims, 1 or 1.75 per cent. to the carelessness of others, 9 or 15.79 per cent. were unavoidable.,

One miner killed by falling into shaft, accident due to carelessness of victim.

Four miners killed by falling down slopes; 2 or 50.00 per cent. by carelessness of the victim, and 2 or 50.00 per cent. were unavoidable.

Five miners suffocated by gas; 1 or 20 per cent. by carelessness of victim, 2 or 40 per cent. by carelessness of others, and 2 or 40 per cent. were unavoidable.

Twenty-six miners killed by suffocation by smoke, by carelessness of others.

Three miners killed, crushed at batteries, 2 or 66.67 per cent. by carelessness of the victims, and 1 or 33.33 per cent. was due to carelessness of others.

Two miners killed by rush of coal, accidents were unavoidable.

One miner killed, falling off cage into shaft, accident due to carelessness of the victim.

One miner killed, struck by piece of coal falling down shaft, accident was unavoidable.

Two miners killed, struck by piece of rock, accident due to carelessness of the victim.

Three miners killed by falling timber; 1 or 33.33 per cent. due to carelessness of the victim, 2 or 66.67 per cent. were unavoidable.

One miner killed by rush of gob, accident due to carelessness.

One miner killed by falling, accident due to the carelessness of victim.

One miner killed, drowned in sump, accident due to carelessness of the victim.

The total number of miners killed was 306, 193 or 63.07 per cent. of whom were killed through their own carelessness, 40 or 13.07 per cent. through the carelessness of others, 73 or 23.86 per cent. of the accidents were unavoidable.

Ninety-three laborers killed by falls, 64 or 68.82 per cent. of whom were killed at face of workings, 10 or 10.75 per cent. while removing pillars, 6 or 6.45 per cent. by falls in chambers, 10 or 10.75 per cent. on gangways, 1 or 1.08 per cent. in crosscuts, 1 or 1.08 per cent. in old workings, and 1 or 1.07 per cent. on slope. Of the 93 fatalities, 34 or 36.56 per cent. were due to the carelessness of the victims, 19 or 20.43 per cent. to the carelessness of others, and 40 or 43.01 per cent. were unavoidable.

Fifteen laborers killed by cars, 7 or 46.66 per cent. of whom were killed on gangways, 2 or 13.33 per cent. in chambers, 3 or 20.00 per cent. on slopes, 1 or 6.67 per cent. in tunnel, 1 or 6.67 per cent. at bottom of slope, and 1 or 6.67 per cent. at bottom of shaft. Of the 15 fatalities, 10 or 66.67 per cent. were due to the carelessness of the victims, and 5 or 33.33 per cent. were unavoidable.

Seven laborers killed by explosions of gas, 1 or 14.29 per cent. of whom was killed on gangway, 2 or 28.57 per cent. in chambers, 2 or 28.57 per cent. in old workings, and 2 or 28.57 per cent. in headings. Of the 7 fatalities, 3 or 42.86 per cent. were due to the carelessness of the victims, 4 or 57.14 per cent. to the carelessness of others.

Nine laborers killed by explosions of blasts at face of workings, 7 or 77.78 per cent. of whom were due to carelessness of victims, 1 or 11.11 per cent. was due to carelessness of others, and 1 or 11.11 per cent. was unavoidable.

Four laborers killed by explosions of powder and dynamite, 2 or 50 per cent. of whom were killed at face of workings, and 2 or 50 per cent. on gangways. Of the 4 fatalities, 3 or 75 per cent. were due to carelessness of the victims, and 1 or 25 per cent. to carelessness of others.

Three laborers suffocated by gas, 1 or 33.33 per cent. was due to carelessness of the victim, 1 or 33.33 per cent. to the carelessness of others, and 1 or 33.34 per cent. was unavoidable.

Four laborers killed by falling down slopes; 2 or 50 per cent. were due to carelessness of the victims, and 2 or 50 per cent. were unavoidable.

Five laborers killed by falling into shafts; 3 or 60 per cent. were due to carelessness of the victims, and 2 or 40 per cent. to the carelessness of others.

Three laborers killed by falling off cage into shafts; 1 or 33.34 per cent. was due to the carelessness of the victim, 1 or 33.33 per cent. was due to the carelessness of others, and 1 or 33.33 per cent. unavoidable.

Twenty-four laborers suffocated by smoke, by carelessness of others.

One laborer killed by machinery, accident due to carelessness of victim.

One laborer killed by being struck by piece of coal, accident was unavoidable.

One laborer killed, strained by pushing mine car, accident unavoidable.

One laborer killed by falling timber, due to carelessness of the victim.

One laborer killed by rush of coal on gangway, due to carelessness of the victim.

One laborer killed by being crushed at battery, accident due to carelessness of the victim.

Two laborers killed by electricity on gangway, 1 or 50 per cent. was due to carelessness of the victim and 1 or 50 per cent. was unavoidable.

One laborer killed by falling from chute, accident was unavoidable.

The total number of laborers killed was 176, 69 or 39.21 per cent. of whom were killed through their own carelessness, 53 or 30.11 per cent. through the carelessness of others, 54 or 30.68 per cent. of the accidents were unavoidable.

Forty-five drivers killed. Of this number 15 or 33.34 per cent. were killed by cars on gangways, 5 or 11.11 per cent. on slopes, 6 or 13.33 per cent. in chambers, 1 or 2.22 per cent. on planes, and 1 or 2.22 per cent. in tunnel, 1 or 2.22 per cent. by explosion of gas on gangway, 2 or 4.45 per cent. by explosions of powder and dynamite on gangway, 3 or 6.67 per cent. kicked by mules, 1 or 2.22 per cent. suffocated by gas, 6 or 13.33 per cent. suffocated by smoke, 1 or 2.22 per cent. by falling on sharp edge of tie, 1 or 2.22 per cent. by clothing catching fire, and 2 or 4.45 per cent. by causes unknown. Of the 45 fatalities, 31 or 68.89 per cent. were due to the carelessness of the victims, 1 or 2.22 per cent. was due to carelessness of others, 13 or 28.89 per cent. were unavoidable.

Fourteen company men killed. Of this number, 1 or 7.14 per cent. was killed by a fall at pillar work, 2 or 14.29 per cent. by explosions of gas on gangway, 1 or 7.14 per cent. suffocated by gas, 9 or 64.29 per cent. suffocated by smoke, and 1 or 7.14 per cent. by machinery. Of the 14 fatalities, 11 or 78.57 per cent. were due to the carelessness of the victims, 2 or 14.29 per cent. to the carelessness of others, 1 or 7.14 per cent. was unavoidable.

Seventy-four other persons killed, including 15 doorboys, 2 assistant mine foremen, 5 fire bosses, 5 brakemen, 4 loaders, 1 hitcher, 1

coupler, 3 engineers, 2 motormen, 1 poleboy, 8 bottommen, 3 roadmen, 3 rockmen, 2 bratticemen, 1 repairman, 3 pumpmen, 3 timbermen, 1 siltman, 1 bellman, 1 mason, 1 dumpman, 3 machine-runners, 2 shaftmen, 1 batteryman, 1 slopeman, and 1 chargeman. Of the 74 fatalities, 42 or 56.76 per cent. were due to the carelessness of the victims, 5 or 6.76 per cent. to the carelessness of others, 27 or 36.48 per cent. were unavoidable.

Of the 615 accidents that occurred inside the mines, 337 or 54.80 per cent. are attributed to the carelessness of the victims themselves, 45 or 7.31 per cent. to the carelessness of others, 233 or 37.89 per cent. to unavoidable accidents.

CAUSES AND LOCATION OF FATAL ACCIDENTS BY DISTRICTS, 1911

Inside

	Districts																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Totals
Falls of coal at face,						1	4	1	6	5		3	3		1	1	2	2	4	2	1	36
Falls of coal at pillar work,			1		1	1		1			2			2	1	2	2					13
Falls of coal on gangway,								1	1													2
Falls of coal back in chamber,											1		3	1								5
Falls of coal in old workings,														1								1
Falls of coal in chute,												1										1
Falls of slate at face,					1			1		2		1	6		3	4	1	3	4	2		28
Falls of slate at pillar work,								1			3	1				1		1	3			10
Falls of slate on gangway,											4		1									5
Falls of slate back in chamber,											1		1			2		1	1			6
Falls of roof at face,	6	22	12	9	6	5	7	13	4	6	1		3		1		1	1		3	2	102
Falls of roof at pillar work,	4			3	8	4					1									1		21
Falls of roof on gangway,		1					3	6		2							1					13
Falls of roof back in chamber,				1	1	2																4
Falls of roof on slope,								1														1
Falls of roof in cross heading,				1																1		2
Falls of roof in tunnel,																		1				1
Falls of roof in strange chamber,	1		1																			2
Cars on gangway,		4	3		3	3		4	7		1	2	4	1	1	1	6	1	3	3		47
Cars in chamber,	3			3				2	1		1							1				11
Cars on slope,		5	4				2	1	1	2					2			1				18
Cars at foot of shaft,				1				2		1												4
Cars at foot of slope,											2					2				1		5
Cars in tunnel,															1		2					3
Cars at mouth of drift,																1						1
Cars at dump chute,															2							2
Cars on plane,		1																				1
Explosions of gas in chamber,							4	1	1	2		1		1			2	1				13
Explosions of gas on gangway,			1			3	2			2										1		9
Explosions of gas in old workings,		2				1																3
Explosions of gas in heading,						1	1										2					4
Explosions of gas in tunnel,																5						5
Suffocation by gas,						1	1		5	1			1	2				3				14
Suffocation by smoke from mine fire,			72																			72
Explosions of powder and dynamite at face,		1				1			2	1			1									6
Explosions of powder and dynamite on gangway,	1					3	1	2				2				2					2	13

Explosions of powder and dynamite in heading,							1					1									2
Explosions of blasts at face,		9	7	6	2	7	4	4	5	5		2			1		1	1	3	2	59
Explosions of blasts on gangway,							1														1
Explosions of blasts at pillar work,																1					1
Explosions of blasts in cross heading,	1			1						1								1	2		6
Falling into shafts,		1	1					1	4			1					1				9
Falling off cage into shafts,					1	1	1											1			4
Falling down slopes, etc.,										1	1	2							1	3	8
Crushed at batteries,							2			1	1					1					5
Kicked by mule,							1												1	1	3
Machinery,			1	1		1															4
Electricity on gangway,										1									1		2
Rush of coal in manway,																		1			1
Rush of coal on gangway,													1		1						2
Struck by piece of rock,							1								1						2
Struck by piece of coal,																			2		2
Struck by coal falling down slope,																	1				1
Struck by wooden rail,		1																			1
Falling timber,				1		1				1	1	2					1				7
Rush of gob,																			1		1
Falling on sharp edge of tie,		1																			1
Falling from chute,																	1				1
By falling,					1																1
Clothing caught fire,		1																			1
Scalded by water,			1																		1
Strained by pushing a car,																	1				1
Drowned in sump,														2							2
Cause unknown,	1											1									2
Totals,	17	49	104	27	24	36	36	42	37	30	21	18	28	9	15	24	26	20	23	23	6	615
Outside																						
Cars,	2	3	1				1		1	1	4	1	2	1	3		3		1	1	1	26
Machinery,	2				1	3	1		1		3	1		3	2	1	2		1		1	22
Suffocation in chutes, etc.,	1								1		5						1					8
Boiler explosions,			1																			1
Electricity,										1												1
Mules,																						0
Falling over chute,		1										1				1						2
Falling off lumber pile,									1													1
Falling off breaker,									1									1				2
Falling off washery,									1													1
Falling off swinging scaffold,																		1				1
Falling off platform,																			1			1
Falling off bench of coal in stripping,																			1			1
Falling down steps in breaker,												1										1
Falling off car,												1	1				1					3
Falling from block and tackle to ground,																			1			1

CAUSES AND LOCATION OF FATAL ACCIDENTS BY DISTRICTS, 1911—Continued

Outside	Districts																					Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Struck by rope,													1									1
Struck by frozen culm,														1								1
Struck by rock in stripping,																		2				2
Struck by clay in stripping,																			1			1
Fall of coal in stripping,			2																			2
Jumping from breaker,			1																			1
Burned in breaker fire,			1																			1
Breaker floor gave way,															1							1
Rush of culm,																		1				1
Totals,	5	4	6		1	3	2		6	2	12	5	4	5	6	2	7	5	6	1	2	84
Grand totals inside and outside,	22	53	110	27	25	39	38	42	43	32	33	23	32	14	21	26	33	25	29	24	8	699

ACCIDENT TABLES

TABLE 1.—Number of minor children killed inside and outside the mines, 1911

Districts	Inside						Outside							Grand totals inside and outside
	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years	Boys 16 years	Totals	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years	Boys 16 years	Boys 15 years	Boys 14 years	Totals	
First,			1			1				1	1			2	3
Second,	3	1	2	2	1	9					1			1	10
Third,	2	5	3	1	2	13									13
Fourth,		1			1	2									2
Fifth,				1		1									1
Sixth,		2		1		3	1		1					2	5
Seventh,			1			1	1							1	2
Eighth,		3	2			5									5
Ninth,		4	1	1		6			1			1		2	8
Tenth,	1	1				2									2
Eleventh,	1		1	1		3	2		1	1				4	7
Twelfth,								2						2	2
Thirteenth,									1					1	1
Fourteenth,			1			1		1						1	2
Fifteenth,	1					1	1	2		1	1			5	6
Sixteenth,	1	1				2		2	1		1			4	6
Seventeenth,		1	2	2		5					1			1	6
Eighteenth,					1	1									1
Nineteenth,										1				1	1
Twentieth,	2	1		1		4	1							1	5
Twenty-first,							1							1	1
Totals,	11	20	14	10	5	60	7	7	5	4	5	1		29	89

TABLE 2.—Number and causes of fatal accidents inside the mines, production, employes, lives lost per 1,000 employes, production per life lost, lives lost per 1,000,000 tons produced, 1911

Counties	Fatal Accidents Inside					Production	Employes inside	Lives lost inside per 1,000 employes	Tons of coal produced per life lost inside	Lives lost inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas	By miscellaneous causes	Totals					
Luzerne,	92	30	18	65	205	31,304,984	46,863	4.37	152,707	6.55
Lackawanna,	78	27	3	110	218	20,177,155	34,069	6.40	92,555	10.80
Schuylkill,	53	18	6	41	118	17,173,613	26,015	4.54	145,539	6.87
Northumberland,	16	10	5	8	39	6,347,653	10,772	3.62	162,760	6.14
Totals,	239	85	32	224	580	75,003,405	117,719	4.08	129,316	7.73
Carbon,	6	5	1	6	18	2,957,574	3,607	4.99	164,309	6.08
Columbia,	1				1	1,065,836	1,473	.68	1,065,836	.94
Dauphin,	4	2	1	3	10	845,503	1,530	6.60	84,550	11.80
Susquehanna,				1	1	600,536	962	1.04	600,536	1.67
Sullivan,	2			2	4	640,562	662	6.04	160,141	6.24
Wayne,	1				1	62,634	84	11.90	62,634	15.97
Totals,	14	7	2	12	35	6,172,645	8,318	4.21	176,361	5.67
Grand totals and averages,	253	92	34	236	615	81,176,050	126,037	4.88	131,993	7.57

TABLE 3.—Nationality by birth of employes killed by falls, 1911

Nationality	Districts																						
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Totals	Percentages
American	4	1	1		2	2	1		2	2			1	2	1	2	3	1	4	4	2	35	13.83
English	1	3	1		1						1		1									8	3.16
Welsh				1	1		1									1	1					5	1.98
Irish	1			1	2						1		1									6	2.37
German				1				1	1													3	1.18
Polish	3	8	5	8	4	7	3	10	5	7	2	1	7		3	4	1	3		1		82	32.41
Hungarian			1								2							1	1			5	1.98
Italian	1	4	1	1	3			4		1	2								1			18	7.11
Slavonian		1	1		1		1	2	1	1	4		1	2			2	1		1		19	7.51
Lithuanian		1	2	2	2	2	2	6	2	1	1	5	4		1			2	3	1	1	38	15.02
Austrian		1				1	1			1						1			3	2		10	3.95
Russian	1	4	2		1	1	5	1		1			1		1	2		1				21	8.30
Swedish										1												1	.40
Tyrolean													1									1	.40
Horwat								1														1	.40
Totals	11	23	14	14	17	13	14	25	11	15	13	6	17	4	6	10	7	9	12	9	3	253	100.00

TABLE 4.—Nationality by birth of employes killed by falls, 1911

Districts	Foreigners				Americans*				Grand totals
	By falls at or near face	By falls while taking out pillars	By falls on gangway going to or from work	Totals	By falls at or near face	By falls while taking out pillars	By falls on gangway going to or from work	Totals	
First,	3	2	.....	5	4	2	.....	6	11
Second,	19	.....	.....	19	3	.....	1	4	23
Third,	11	1	.....	12	2	.....	.....	2	14
Fourth,	10	1	.....	11	1	2	.....	3	14
Fifth,	4	6	.....	10	5	2	.....	7	17
Sixth,	7	4	.....	11	1	1	.....	2	13
Seventh,	10	.....	2	12	1	.....	1	2	14
Eighth,	15	2	7	24	1	.....	.....	1	25
Ninth,	7	.....	1	8	3	.....	.....	3	11
Tenth,	12	.....	1	13	1	.....	1	2	15
Eleventh,	3	4	4	11	.....	2	.....	2	13
Twelfth,	5	1	.....	6	.....	.....	.....	.....	6
Thirteenth,	14	.....	.....	14	2	.....	1	3	17
Fourteenth,	1	1	.....	2	1	1	.....	2	4
Fifteenth,	4	1	.....	5	1	.....	.....	1	6
Sixteenth,	5	2	.....	7	2	1	.....	3	10
Seventeenth,	2	1	.....	3	2	1	1	4	7
Eighteenth,	6	1	1	8	1	.....	.....	1	9
Nineteenth,	6	2	.....	8	2	2	.....	4	12
Twentieth,	4	1	.....	5	4	.....	.....	4	9
Twenty-first,	1	.....	.....	1	2	.....	.....	2	3
Totals,	149	30	16	195	39	14	5	58	253

*English-speaking employes, including Americans, English, Scotch, Irish, Welsh and Germans.

Table 5—Part 1—Number and causes of fatal accidents inside the mines, employes, and lives lost per 1,000 employes, in the Northern, Middle and Southern Coal Fields, 1911

Districts	Employes	Fatal Accidents Inside By: Falls	Lives lost by falls per 1,000 employes	Cars	Lives lost by cars per 1,000 employes	Explosions of gas	Lives lost by explosions of gas per 1,000 employes	Suffocation by gas, etc.	Lives lost by suffocation of gas, etc., per 1,000 employes	Explosions of powder and dynamite	Lives lost by explosions of powder and dynamite per 1,000 employes
Northern Coal Field											
First,	4,613	11	2.38	3	.65					1	.22
Second,	9,226	23	2.49	10	1.08	2	.22			1	.11
Third,	8,647	14	1.62		.81	1	.12	*72	8.33		
Fourth,	6,890	14	2.03	4	.58						
Fifth,	5,282	17	3.22	3	.57						
Sixth,	8,335	13	1.56	3	.36	5	.60	1	.12	4	.48
Seventh,	8,125	14	1.72	2	.25	7	.82	1	.12	2	.25
Eighth,	6,869	25	3.65	9	1.31	1	.15			2	.29
Ninth,	7,849	11	1.40	9	1.15	1	.13	5	.64	2	.25
Tenth,	7,161	15	2.09	3	.42	4	.56	1	.14	1	.14
Twenty-first,	2,209	3	1.36							2	.91
Totals and averages,	75,206	160	2.13	53	.70	21	.28	80	1.06	15	.20
Middle and Southern Coal Fields											
Eleventh,	7,434	13	1.75	4	.54						
Twelfth,	5,111	6	1.18	2	.39	1	.20			3	.59
Thirteenth,	4,983	17	3.41	4	.80			1	.20	1	.20
Fourteenth,	3,245	4	1.23	1	.31	1	.31	2	.62		
Fifteenth,	5,777	6	1.03	6	1.03						
Sixteenth,	4,995	10	2.00	4	.80	5	1.00			2	.40

*Pancoast disaster.

Seventeenth,	5,643	7	1.24	8	1.42	4	.71				
Eighteenth,	4,617	9	1.95	3	.65	1	.22	3	.65		
Nineteenth,	4,873	12	2.46	3	.62						
Twentieth,	4,153	9	2.17	4	.96	1	.24				
Totals and averages,	50,831	93	1.83	39	.77	13	.26	6	.12	6	.12
Grand totals and averages,	126,037	253	2.00	92	.73	34	.27	86	.68	21	.17

TABLE 5—Part 1—Continued

Districts	Fatal Accidents Inside By									
	Blasts, premature and otherwise	Lives lost by blasts, premature and otherwise per 1,000 employes	Falling into shafts, etc.	Lives lost by falling into shafts, etc., per 1,000 employes	Crushed at batteries	Lives lost by being crushed at batteries per 1,000 employes	Kicked by mules	Lives lost by being kicked by mules per 1,000 employes	Machinery	Lives lost by machinery per 1,000 employes
Northern Coal Field										
First,	1	.22								
Second,	9	.97	1	.11					1	.12
Third,	7	.81	1	.12					1	.15
Fourth,	7	1.02								
Fifth,	2	.38	1	.19					1	.12
Sixth,	7	.84	1	.12	2	.25	1	.12		
Seventh,	5	.62	1	.12						
Eighth,	4	.58	1	.15						
Ninth,	5	.64	4	.51						
Tenth,	5	.70							1	.45
Twenty-first,										
Totals and averages,	52	.69	10	.13	2	.03	1	.01	4	.05
Middle and Southern Coal Fields										
Eleventh,	1	.13	1	.13	1	.13				
Twelfth,	2	.39	2	.29	1	.20				
Thirteenth,			2	.46						
Fourteenth,										
Fifteenth,	1	.17								
Sixteenth,	1	.20								

Seventeenth,	1	.18	1	.18	1	.18						
Eighteenth,	2	.43	1	.22								
Nineteenth,	5	1.01	1	.21			1	.21				
Twentieth,	2	.48	3	.72			1	.24				
Totals and averages,	15	.29	11	.22	3	.06	2	.03				
Grand totals and averages,	67	.53	21	.17	5	.04	3	.02	4	.03		

TABLE 5—Part 1—Continued

Districts	Fatal Accidents Inside By: Electricity	Fatal Accidents Inside By: Lives lost by electricity per 1,000 employes	Fatal Accidents Inside By: Miscellaneous causes	Fatal Accidents Inside By: Lives lost by miscellaneous causes per 1,000 employes	Total number of fatal accidents inside	Lives lost per 1,000 employes	Production in tons of 2,000 pounds	Lives lost per 1,000,000 tons produced	Tons of coal produced per life lost	Tons of coal produced per employe
Northern Coal Field										
First,			1	.22	17	3.69	3,105,848	5.47	182,697	673
Second,			3	.33	49	5.31	5,920,834	8.28	120,833	642
Third,			1	.12	104	12.03	5,184,097	20.06	49,874	599
Fourth,			1	.15	27	3.92	4,560,501	5.92	168,907	662
Fifth,			1	.19	24	4.54	4,379,467	5.48	182,478	829
Sixth,			1	.12	36	4.32	5,672,444	6.35	157,568	681
Seventh,			1	.12	36	4.43	6,125,637	5.88	170,157	754
Eighth,					42	6.11	4,442,432	9.45	105,772	647
Ninth,					57	4.71	6,489,433	5.70	175,390	827
Tenth,	1	.14			30	4.19	4,954,524	6.06	165,151	692
Twenty-first,					6	2.72	1,805,026	3.32	300,838	817
Totals and averages,	1	.01	9	.12	408	5.43	52,640,243	7.75	129,020	700
Middle and Southern Coal Fields										
Eleventh,			1	.13	21	2.82	6,479,932	3.24	308,568	872
Twelfth,			1	.20	18	3.52	3,409,041	5.28	189,391	667
Thirteenth,			3	.60	28	5.62	3,860,948	7.25	137,891	775
Fourteenth,			1	.31	9	2.77	2,773,556	3.24	308,173	855
Fifteenth,			2	.35	15	2.60	3,852,032	3.89	256,802	667
Sixteenth,			2	.40	24	4.80	3,257,340	7.37	135,723	652
Seventeenth,			4	.71	26	4.61	5,232,308	4.97	201,243	927

Eighteenth,			1	.22	20	4.33	3,209,995	6.23	160,500	695
Nineteenth,	1	.21			23	4.72	3,554,008	6.47	154,522	729
Twentieth,			3	.72	23	5.54	2,647,773	8.69	115,077	554
Totals and averages,	1	.02	18	.35	207	4.07	38,276,903	5.41	184,913	737
Grand totals and averages,	2	.02	27	.21	615	4.88	90,917,176	6.76	147,831	721

TABLE 5—Part 2—Number and causes of fatal accidents outside the mines, employes, lives lost per 1,000 employes, in the Northern, Middle and Southern Coal Fields, 1911

Districts	Employes	Fatal Accidents Outside By												Total number of fatal accidents outside	Lives lost per 1,000 employes	Number of employes inside and outside	Fatal accidents inside and outside	Lives lost inside and outside per 1,000 employes
		Cars	Lives lost by cars per 1,000 employes	Machinery	Lives lost by machinery per 1,000 employes	Suffocation in chutes, etc.	Lives lost by suffocation in chutes, etc., per 1,000 employes	Boiler explosions	Lives lost by boiler explosions per 1,000 employes	Electricity	Lives lost by electricity per 1,000 employes	Miscellaneous causes	Lives lost by miscellaneous causes per 1,000 employes					
Northern Coal Field																		
First,	1,603	2	1.25	2	1.25	1	.62							5	3.12	6,216	22	3.54
Second,	2,847	3	1.05									1	.35	4	1.40	12,073	53	4.39
Third,	2,184	1	.46					1	.46			4	1.83	6	2.75	10,831	110	10.16
Fourth,	1,822															8,712	27	3.10
Fifth,	1,931			1	.52									1	.52	7,213	25	3.47
Sixth,	2,703			3	1.11									3	1.11	11,038	39	3.53
Seventh,	2,437	1	.41	1	.41									2	.82	10,562	38	3.60
Eighth,	2,159															9,628	42	4.65
Ninth,	2,373	1	.42	1	.42	1	.42					3	1.26	6	2.53	10,222	43	4.21
Tenth,	2,256	1	.44							1	.44			2	.89	9,417	32	3.40
Twenty-first,	846	1	1.18	1	1.18									2	2.36	3,055	8	2.62
Totals and averages,	23,161	10	.43	9	.39	2	.09	1	.04	1	.04	8	.35	31	1.34	98,367	439	4.46
Middle and Southern Coal Fields																		
Eleventh,	3,535	4	1.13	3	.82	5	1.41							12	3.39	10,969	33	3.01
Twelfth,	2,089	1	.48	1	.48							3	1.44	5	3.59	7,200	23	3.19
Thirteenth,	2,996	2	.67									2	.67	4	1.34	7,979	32	4.01
Fourteenth,	1,772	1	.56	3	1.69							1	.56	5	2.82	5,017	14	2.77
Fifteenth,	2,265	3	1.32	2	.88							1	.44	6	2.65	8,042	21	2.61
Sixteenth,	2,111			1	.47							1	.47	2	.95	7,106	26	3.66
Seventeenth,	3,004	3	1.00	2	.67	1	.33					1	.33	7	2.33	8,647	33	3.82

Eighteenth,	2,261											5	2.21	5	2.21	6,878	25	3.63
Nineteenth,	2,437	1	.41	1	.41							4	1.64	6	2.46	7,310	29	3.97
Twentieth,	1,670	1	.60											1	.60	5,823	24	4.12
Totals and averages,	24,140	16	.66	13	.54	6	.25					18	.75	53	2.20	74,971	260	3.47
Grand totals and averages,	47,301	26	.55	22	.47	8	.17	1	.02	1	.02	26	.55	84	1.78	173,398	699	4.03

TABLE 6.—Number and causes of fatal accidents, production, employes, lives lost per 1,000 employes, production per life lost, lives lost per 1,000,000 tons produced, 1899-1911 inclusive

Years	Fatal Accidents By											
	Falls		Cars		Explosions of Gas		Explosions of Powder and Dynamite		Blasts, Premature and Otherwise		Falling Into Shafts, Etc.	
	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages
1899,	226	58.10	51	13.11	28	7.20	11	2.83	27	6.94	16	4.11
1900,	175	48.88	60	16.76	38	10.61	14	3.91	29	8.10	19	5.31
1901,	226	51.25	69	15.65	33	7.48	15	3.40	36	8.16	24	5.44
1902,	116	47.35	42	17.14	20	8.16	19	7.75	13	5.31	13	5.31
1903,	210	49.30	70	16.43	26	6.10	17	3.99	38	8.92	31	7.28
1904,	238	47.98	71	14.31	30	6.05	35	7.06	34	6.86	26	5.24
1905,	295	53.54	82	14.88	33	5.99	16	2.91	44	7.99	43	7.80
1906,	214	46.93	67	14.69	43	9.43	28	6.14	53	11.62	20	4.39
1907,	279	46.42	88	14.64	44	7.32	17	2.83	70	11.65	25	4.16
1908,	284	47.65	90	15.10	57	9.56	23	3.86	69	11.58	22	3.69
1909,	254	51.84	71	14.49	28	5.71	22	4.49	47	9.59	18	3.67
1910,	253	49.71	92	18.02	20	3.93	22	4.32	60	11.79	19	3.73
1911,	253	41.14	92	14.96	34	5.53	21	3.42	67	10.89	21	3.42
Totals and percentages,	3,023	48.97	945	15.31	434	7.03	260	4.21	587	9.51	297	4.81

TABLE 6.—Continued

Years	Fatal Accidents By: Electricity: Number	Electricity: Percentages	Miscellaneous Causes: Number	Miscellaneous Causes: Percentages	Total number of fatal accidents inside	Total number of fatal accidents outside	Grand total of fatal accidents inside and outside	Number of employes inside and outside	Production in tons of 2,000 pounds	Lives lost per 1,000 employes	Tons of coal produced per life lost	Lives lost per 1,000,000 tons produced
1899,			30	7.71	389	72	461	140,604	60,518,331	3.28	131,276	7.62
1900,			23	6.43	358	53	411	143,824	57,363,396	2.86	139,570	7.16
1901,			38	8.62	441	72	513	147,651	67,094,665	3.47	130,789	7.65
1902,			22	8.98	245	55	300	148,139	41,340,935	2.03	137,803	7.26
1903,	1	.24	33	7.74	426	92	518	151,827	75,232,585	3.41	145,237	6.89
1904,			62	12.50	496	99	595	161,330	73,594,369	3.69	123,688	8.08
1905,	2	.36	36	6.53	551	93	644	168,254	78,647,020	3.83	122,123	8.19
1906,			31	6.80	456	101	557	166,175	72,139,510	3.35	129,514	7.72
1907,	3	.50	75	12.48	601	107	708	168,774	86,056,412	4.20	121,549	8.23
1908,	1	.17	50	8.39	596	82	678	174,503	83,543,243	3.88	123,220	8.12
1909,	6	1.22	44	8.99	490	77	567	171,195	80,223,833	3.31	141,488	7.07
1910,	3	.59	40	7.86	509	92	601	168,175	83,683,994	3.57	139,241	7.18
1911,	2	.32	125	20.32	615	84	699	173,338	90,917,176	4.03	130,067	7.69
Totals and percentages,	18	.29	609	9.87	6,173	1,079	7,252	2,083,789	950,355,469	3.48	131,047	7.63

NOTE: This table shows the accidents by years from 1899 to 1911, inclusive, a period of thirteen years, during which time the present Chief of the Department of Mines has been in charge of the Department. In 1899, 3.28 lives were lost for every 1,000 persons employed, 1 life lost for every 131,276 tons of coal produced, and 7.62 lives lost for every 1,000,000 tons produced. The average percentage of fatalities for the thirteen years was 3.48 for every 1,000 persons employed, an increase over 1899 of .20. Even this small increase is to be deplored, but it has occurred in spite of the fact that the Chief of the Department of Mines has during the period named performed his full duty, as have the Inspectors in charge of the various districts. In another part of this report it is shown that at least 60 per cent. of the accidents are due to carelessness or ignornace. In 1899 there were 140,604 employes working in and about the mines and 8 mine inspectors had supervision of the region. The number of employes in 1911 was 173,338, an increase of about 23 per cent., while the number of inspectors, of whom there have been 21 in service for several years, shows an increase of over 162 per cent. It is known to every mine official and mine worker that there are two inspections made at present to every one that was made several years ago.

TABLE 7.—Number of mines in operation, production, number of inside employes, number of lives lost inside, production per life lost inside and number of lives lost inside per 1,000,000 tons produced in each district, 1911

Districts	Mines in operation	Production in tons of 2,000 pounds	Inside employes	Lives lost inside	Production per life lost inside	Lives lost per 1,000,000 tons produced
First,	31	3,105,848	4,613	17	182,697	5.47
Second,	35	5,920,834	9,226	49	120,833	8.28
Third,	24	5,184,097	8,647	104	49,874	20.06
Fourth,	29	4,560,501	6,890	27	168,907	5.92
Fifth,	32	4,379,467	5,282	24	182,478	5.48
Sixth,	37	5,672,444	8,335	36	157,568	6.35
Seventh,	49	6,125,637	8,125	36	170,157	5.88
Eighth,	25	4,442,432	6,809	42	105,772	9.45
Ninth,	32	6,489,433	7,849	37	175,390	5.70
Tenth,	39	4,954,524	7,161	30	165,151	6.06
Eleventh,	87	6,479,932	7,434	21	308,568	3.24
Twelfth,	15	3,409,041	5,111	18	189,391	5.28
Thirteenth,	34	3,860,948	4,983	28	137,891	7.25
Fourteenth,	22	2,773,556	3,245	9	308,173	3.24
Fifteenth,	30	3,852,032	5,777	15	256,802	3.89
Sixteenth,	45	3,257,340	4,995	24	135,723	7.37
Seventeenth,	41	5,232,308	5,643	26	201,243	4.97
Eighteenth,	43	3,209,995	4,617	20	160,500	6.23
Nineteenth,	44	3,554,008	4,873	23	154,522	6.47
Twentieth,	26	2,647,773	4,153	23	115,077	8.69
Twenty-first,	13	1,805,026	2,209	6	300,838	3.32
Totals and averages,	733	90,917,176	126,037	615	147,831	6.76

TABLE 8.—Causes of fatal accidents inside the mines and production per accident, by counties, 1899-1911 inclusive

Years	Counties	Number of mines	Number of inside employes	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Luzerne,	156	33,078	22,287,711	98	16	144	154,776	6.46
1900		152	34,476	21,481,122	87	17	135	159,119	6.28
1901		148	36,019	23,963,869	95	22	182	131,670	7.59
1902		229	35,491	14,280,332	36	7	93	153,552	6.51
1903		233	38,370	26,797,659	75	15	169	158,566	6.30
1904		256	41,603	26,794,072	106	8	200	133,970	7.46
1905		254	43,109	28,209,791	122	14	215	131,208	7.62
1906		271	41,643	26,612,192	84	27	194	137,176	7.29
1907		243	42,022	30,853,087	105	19	223	138,355	7.23
1908		243	46,302	31,728,997	116	34	258	122,981	8.13
1909		241	45,121	30,992,306	112	16	202	153,427	6.52
1910		250	44,383	32,106,978	96	12	215	149,335	6.70
1911		281	46,863	35,061,582	92	18	205	171,032	5.85
	Totals and averages,		528,480	351,169,698	1,194	225	2,435	144,218	6.93
1899	Lackawanna,	76	22,314	14,838,823	71	2	108	137,397	7.28
1900		83	23,907	13,755,961	55	8	89	154,561	6.47
1901		80	26,207	17,258,125	63	4	109	158,331	6.31
1902		118	25,931	9,647,425	23		43	224,359	4.45
1903		114	27,755	18,457,647	59	3	107	172,501	5.80
1904		115	30,500	17,070,437	62	7	115	148,439	6.73
1905		126	30,853	17,917,376	82	2	127	141,082	7.09
1906		157	31,196	18,840,560	70	4	112	168,219	5.94
1907		155	32,444	22,433,408	87	16	174	128,928	7.75
1908		162	32,296	21,631,995	80	3	141	153,418	6.52
1909		157	33,764	20,489,212	73	1	129	158,831	6.29
1910		157	33,285	21,182,921	87	3	139	152,395	6.56
1911		151	34,069	22,598,414	78	3	218	103,662	9.65
	Totals and averages,		384,521	236,122,304	890	56	1,611	146,568	6.82
1899	Schuylkill,	83	20,474	13,694,170	43	8	90	152,157	6.57
1900		82	19,952	12,998,899	32	11	82	158,523	6.31
1901		76	20,415	15,277,658	39	6	93	164,276	6.09
1902		76	20,876	7,886,235	37	3	60	131,437	7.61
1903		76	20,144	16,389,505	44	6	88	186,244	5.37
1904		106	22,272	15,738,763	43	8	107	147,091	6.80
1905		132	25,716	17,339,422	60	11	136	127,496	7.84
1906		153	25,365	16,376,538	32	7	94	174,218	5.74
1907		140	25,181	20,169,970	48	3	123	163,910	6.10
1908		179	26,625	18,196,714	54	17	121	150,386	6.65
1909		178	25,749	16,794,597	35	7	88	190,848	5.24
1910		188	25,302	17,696,013	44	4	94	188,255	5.31
1911		185	26,015	19,234,447	53	6	118	163,004	6.13
	Totals and averages,		304,086	207,783,931	564	97	1,294	160,575	6.23
1899	Northumberland,	28	9,739	4,860,293	19	2	23	211,317	4.73
1900		27	9,741	4,690,944	15	1	33	142,150	7.03
1901		27	9,867	5,430,991	21	1	36	150,861	6.63
1902		28	9,670	3,124,259	10	10	34	91,890	10.88
1903		26	9,312	5,506,038	21	2	35	157,373	6.36
1904		52	9,248	5,359,028	15	6	39	137,411	7.28
1905		54	9,823	5,373,001	24	5	42	127,929	7.82
1906		70	9,585	5,367,497	17	3	32	167,734	5.96
1907		60	10,653	6,605,392	23	5	45	148,120	6.75
1908		68	10,639	6,067,741	23	2	49	123,821	8.08
1909		67	10,361	5,987,845	25	3	46	130,170	7.68
1910		73	10,665	6,324,318	17		32	197,635	5.06
1911		75	10,772	7,109,371	16	5	39	182,292	5.49
	Totals and averages,		130,075	71,866,708	243	46	485	148,179	6.75

TABLE 8.—Continued

Years	Counties	Number of mines	Number of inside employes	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Carbon,	11	2,025	1,826,266	2	.....	10	182,627	5.48
1900		11	2,052	1,863,636	1	.....	3	621,212	1.61
1901		10	2,265	1,858,519	3	.....	10	185,852	5.38
1902		10	2,242	1,051,926	1	.....	4	262,982	3.80
1903		15	2,120	2,133,637	2	.....	13	164,125	6.09
1904		20	2,381	2,253,512	2	.....	7	321,930	2.11
1905		23	2,460	2,476,406	.....	.....	9	275,156	3.63
1906		23	2,740	2,246,823	2	1	6	374,470	2.67
1907		30	2,989	2,762,523	3	1	14	197,323	5.07
1908		22	3,531	2,784,946	4	.....	9	309,438	3.23
1909		28	3,492	2,652,997	3	1	16	165,812	6.03
1910		33	3,575	3,214,169	3	1	15	214,278	4.67
1911		31	3,607	3,312,483	6	1	18	184,027	5.43
	Totals and averages,		35,479	30,437,843	32	5	134	227,148	4.40
1899	Columbia,	6	1,346	1,002,468	2	.....	5	200,494	4.99
1900		7	1,163	980,720	3	.....	5	196,144	5.10
1901		5	714	1,209,859	2	.....	4	302,465	3.31
1902		6	1,438	230,870	.....	.....	3	76,957	12.99
1903		5	1,454	1,353,904	.....	.....	3	451,301	2.22
1904		10	1,419	1,151,624	7	.....	10	115,162	8.68
1905		9	1,567	1,229,697	2	.....	7	175,671	5.69
1906		7	1,403	969,065	3	1	7	138,438	7.22
1907		8	1,468	1,188,268	1	.....	4	297,067	3.37
1908		9	1,559	1,182,326	2	.....	5	236,465	4.22
1909		8	1,568	1,093,103	1	.....	2	546,551	1.83
1910		11	1,176	960,145	1	.....	1	960,145	1.04
1911		7	1,473	1,193,736	1	.....	1	1,193,736	.84
	Totals and averages,		17,748	13,745,785	25	1	57	241,154	4.15
1899	Dauphin,	2	1,583	817,327	1	.....	8	102,166	9.79
1900		2	1,608	779,135	2	1	8	97,392	10.27
1901		2	1,562	830,572	3	.....	7	118,653	8.43
1902		2	1,120	423,341	.....	.....	1	423,341	2.36
1903		2	1,256	732,969	3	.....	5	146,594	6.82
1904		9	1,269	723,415	.....	1	*11	65,765	15.21
1905		10	1,350	723,126	1	1	5	144,625	6.91
1906		10	1,422	734,723	3	.....	3	244,908	4.08
1907		12	1,393	829,980	2	.....	5	165,996	6.02
1908		12	1,481	848,005	1	.....	9	94,223	10.61
1909		12	1,419	932,393	1	.....	2	466,197	2.15
1910		11	1,446	886,192	1	.....	8	110,774	9.03
1911		11	1,530	946,963	4	1	10	94,696	10.56
	Totals and averages,		18,439	10,208,141	22	4	82	124,439	8.03
1899	Susquehanna,	2	941	609,020	.....	.....	.....	.....	.....
1900		2	904	556,004	.....	.....	.....	.....	.....
1901		2	1,104	743,105	.....	.....	.....	.....	.....
1902		2	1,086	452,758	2	.....	2	226,378	4.42
1903		2	1,064	800,773	4	.....	6	133,462	7.49
1904		2	1,102	692,440	2	.....	6	115,407	8.67
1905		2	1,026	680,146	6	.....	6	113,358	8.82
1906		3	1,028	562,102	2	.....	6	93,684	10.67
1907		3	970	644,088	9	.....	12	53,674	18.63
1908		1	1,005	487,900	2	.....	2	243,950	4.10
1909		2	953	589,836	2	.....	3	196,612	5.09
1910		2	971	628,808	4	.....	4	157,202	6.36
1911		3	902	672,600	.....	.....	1	672,600	1.49
	Totals and averages,		13,116	8,209,580	33	.....	48	171,033	5.85

*Williamstown disaster.

TABLE 8.—Continued

Years	Counties	Number of mines	Number of inside employes	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Sullivan,	2	322	183,182	1	------	1	183,182	5.46
1900		2	337	235,113	3	------	3	78,371	12.76
1901		2	281	152,505	------	------	------	------	------
1902		3	523	409,017	3	------	5	81,803	12.23
1903		3	455	293,442	2	------	2	146,721	6.82
1904		3	443	294,305	1	------	1	294,305	3.40
1905		4	331	310,496	1	------	2	155,248	6.44
1906		4	414	358,627	1	------	2	179,313	5.58
1907		4	459	433,101	1	------	1	433,101	2.31
1908		4	583	550,713	2	------	2	275,356	3.63
1909		4	661	641,216	2	------	2	320,608	3.12
1910		4	614	632,874	------	------	1	632,874	1.58
1911		4	662	717,429	2	------	4	179,357	5.60
	Totals and averages,	------	6,085	5,212,020	19	------	26	200,462	4.98
1899	Wayne,	1	353	309,070	------	------	------	------	------
1900		1	11	21,862	------	------	------	------	------
1901		1	589	369,462	------	------	------	------	------
1902		------	------	------	------	------	------	------	------
1903		1	125	68,395	------	------	------	------	------
1904		1	125	76,353	------	------	------	------	------
1905		1	136	67,008	------	------	------	------	------
1906		3	202	71,381	------	------	------	------	------
1907		3	270	85,594	------	------	------	------	------
1908		2	212	63,906	------	------	------	------	------
1909		2	184	50,338	------	------	------	------	------
1910		2	125	51,576	------	------	------	------	------
1911		2	84	70,150	1	------	1	70,150	14.26
	Totals and averages,	------	2,416	1,305,095	1	------	1	1,305,095	.77

TABLE 9.—Number of miners and miners' laborers employed in the mines; number killed and ratio of each class killed per 1,000 employes; average number of days worked by breakers; average production per day worked by breakers; 1881-1911, inclusive

Years	Number of miners employed	Number of miners killed	Number of miners killed per 1,000 employes	Number of miners' laborers employed	Number of miners' laborers killed	Number of miners' laborers killed per 1,000 employes	Average number of days worked by breakers	Average production per day worked by breakers, gross tons
1881	22,809	114	4.99	16,726	70	4.19	221	138,181
1882	22,843	135	5.91	15,229	56	3.68	218	143,584
1883	25,319	136	5.37	16,859	67	3.97	232	145,272
1884	27,100	132	4.87	19,606	81	4.13	192	169,590
1885	28,305	160	5.65	20,128	86	4.27	204	167,331
1886	25,970	131	5.04	17,068	68	3.98	196	177,437
1887	29,558	102	3.45	17,548	57	3.25	208	180,981
1888	34,547	169	4.89	21,952	87	3.96	218	191,002
1889	30,504	194	6.36	19,368	79	4.08	197	197,837
1890	28,936	146	5.05	18,620	95	5.10	210	191,268
1891	30,552	180	5.89	19,590	119	6.07	213	208,339
1892	30,779	180	5.84	22,110	111	5.02	202	226,428
1893	32,881	195	5.93	22,853	108	4.73	202	233,562
1894	33,357	218	6.54	23,942	91	3.80	175	260,035
1895	34,553	179	5.18	24,638	115	4.67	187	271,909
1896	37,003	204	5.51	26,530	134	5.09	170	282,790
1897	36,932	210	5.69	27,277	99	3.63	151	310,310
1898	36,377	176	4.84	24,060	124	5.15	151	312,220
1899	36,421	199	5.46	23,946	114	4.75	179	301,867
1900	36,832	184	4.99	24,613	95	3.86	176	291,007
1901	37,804	224	5.92	26,265	122	4.64	195	307,210
1902	36,392	114	3.13	25,443	62	2.44	*116	†318,213
1903	36,823	204	5.49	27,533	110	4.00	211	318,350
1904	39,848	233	5.85	31,217	145	4.64	213	308,494
1905	42,078	308	7.32	31,967	148	4.63	208	337,599
1906	41,801	226	5.41	29,652	133	4.48	206	312,671
1907	43,035	309	7.18	29,984	136	4.54	227	338,485
1908	44,340	313	7.05	32,853	154	4.68	211	353,517
1909	44,675	264	5.91	32,232	126	3.91	205	349,407
1910	43,651	254	5.82	32,040	147	4.59	212	352,443
1911	45,324	306	6.75	32,905	176	5.35	234	346,906

*Strike during the year.

†Washeries worked during the strike. The time was not computed in the average days worked.

NOTE: The above table shows that in 1881, 22,809 miners and 16,726 miners' laborers were employed, an average of 221 days, and that 138,181 tons of coal were produced each day worked. In 1891, 30,552 miners and 19,590 miners' laborers were employed, an average of 213 days, and 208,339 tons were produced each day worked. The increase in the number of miners and miners' laborers was 26.83 per cent., while the increase in production per day was 50.77 per cent. In 1901, 37,804 miners and 26,265 miners' laborers were employed an average of 195 days and 307,210 tons were produced each day worked. The increase in the number of miners and miners' laborers was 27.77 per cent., while the increase in the production per day was 47.45 per cent. During 1911, 45,324 miners and 32,905 miners' laborers were employed, an average of 234 days, and the production per day was 346,906 tons. The increase in the number of miners and miners' laborers over 1901 is 22.10 per cent., while the increase in the production per day is only 12.92 per cent. The number of miners and miners' laborers in 1891 was 50,142; in 1911 the number was 78,229, an increase of 56.01 per cent., while the increase in production of coal per day was 66.51 per cent.

TABLE 10.—Number of employes inside and outside the mines, number of fatal accidents per 1,000 employes, number of tons of coal mined per fatal accident 1881-1911, inclusive

Years	Inside				Outside			Number of lives lost inside and outside per 1,000 employes
	Employes	Fatal accidents	Lives lost per 1,000 employes	Production of coal in tons of 2,000 pounds for each life lost	Employes	Fatal accidents	Lives lost per 1,000 employes	
1881,	45,619	234	5.13	146,165	30,412	39	1.28	3.59
1882,	50,764	254	4.92	140,230	31,436	41	1.30	3.54
1883,	56,268	274	4.87	137,764	35,153	49	1.39	3.53
1884,	61,922	286	4.62	127,513	39,151	46	1.17	3.28
1885,	62,901	290	4.61	131,834	37,449	42	1.12	3.31
1886,	63,930	236	3.69	165,046	39,114	43	1.10	2.71
1887,	67,716	270	3.99	156,153	38,801	46	1.19	2.97
1888,	78,688	317	4.03	147,114	43,530	47	1.08	2.98
1889,	74,178	339	4.57	128,763	45,486	58	1.28	3.32
1890,	73,613	323	4.39	139,276	46,306	55	1.19	3.15
1891,	76,569	372	4.86	133,606	46,339	56	1.20	3.47
1892,	82,088	361	4.40	141,903	48,212	57	1.18	3.21
1893,	86,287	388	4.49	136,188	51,682	68	1.32	3.30
1894,	87,901	368	4.19	138,497	52,038	78	1.50	3.19
1895,	89,251	354	3.97	160,872	54,454	67	1.23	2.93
1896,	94,798	430	4.54	125,217	55,290	72	1.30	3.34
1897,	95,812	372	3.88	141,347	53,745	51	.95	2.83
1898,	91,171	360	3.95	146,674	51,249	51	.99	2.89
1899,	92,167	389	4.22	155,574	48,437	72	1.49	3.28
1900,	94,140	358	3.80	160,233	49,684	53	1.07	2.86
1901,	98,434	441	4.48	152,142	49,217	72	1.46	3.47
1902,	98,377	245	*2.49	168,739	49,762	55	1.11	2.03
1903,	102,055	426	4.17	176,602	49,772	92	1.85	3.41
1904,	110,362	496	4.49	148,376	50,968	99	1.94	3.69
1905,	116,371	551	4.73	142,735	51,883	93	1.79	3.83
1906,	114,998	456	3.97	141,250	51,177	101	1.98	3.35
1907,	117,849	601	5.10	143,189	50,925	107	2.10	4.20
1908,	124,233	596	4.79	140,173	50,270	82	1.63	3.88
1909,	123,272	490	3.98	163,722	47,923	77	1.61	3.31
1910,	121,542	509	4.19	164,409	46,633	92	1.97	3.57
1911,	126,037	615	4.88	147,833	47,301	84	1.78	4.03

*Year of the big strike, when an average of only 116 days was worked by the collieries.

COMPARISON OF PRODUCTION AND FATAL ACCIDENTS INSIDE THE MINES, 1908-1911, INCLUSIVE

To the following table the attention of persons in charge of mines and persons who work in the mines is especially directed. The table is subdivided into groups. The first group comprises 8 of the largest companies, whose production during the four years averaged from 10,000,000 to 46,000,000 tons. The average production per life lost was 159,755 tons. The average number of fatalities per 1,000,000 tons was 6.26. The Lehigh Coal and Navigation Company, the Delaware and Hudson Company and the Philadelphia and Reading Coal and Iron Company have the best record. The second group comprises 11 companies, whose production during the four years averaged from 3,000,000 to over 9,000,000 tons. The average production per life lost was 121,585 tons. The average number of fatalities per 1,000,000 tons produced was 8.22. In this group the Kingston Coal Company, Coxe Brothers and Company and the Hillside Coal and Iron Company have the best record. The third group comprises 9 companies, whose production during the four years averaged from 1,500,000 to 2,900,000 tons. The average production per life lost was 153,528 tons. The average number of fatalities per 1,000,000 tons produced was 6.51. In this group Pardee Brothers and Company, Midvalley Coal Company, St. Clair Coal Company and A. Pardee and Company are conspicuous for their good record. The fourth group comprises the companies that produced from 1,000,000 tons to 1,500,000 tons. The average production per life lost was 184,125 tons. The average number of fatalities per 1,000,000 tons produced was 5.43. The following companies in this group have a most favorable record: Connell Anthracite Mining Company, Alden Coal Company, Pine Hill Coal Company and Estate A. S. Van Wickle. The fifth group comprises companies that produced from 700,000 to over 1,000,000 tons. The average production per life lost was 217,585 tons. The average number of fatalities per 1,000,000 tons produced was 4.60. The following companies deserve special mention: Dolph Coal Company, Hazle Mountain Coal Company, Maryd Coal Company, Upper Lehigh Coal Company, Enterprise Coal Company, Harwood Coal Company and Dodson Coal Company. The sixth group comprises the companies that produced from 100,000 to nearly 695,000 tons. The average production per life lost was 121,188 tons. The average number of fatalities per 1,000,000 tons produced was 8.25. In this group favorable mention is also made of the O'Boyle-Foy Anthracite Coal Company, Raub Coal Company, W. R. McTurk Company, Green Ridge Coal Company and Trevorton Colliery Company. The 30 companies not included in these groups produced during the four years 2,768,613 tons with an average production per life lost of 60,187 tons and an average number of fatalities per 1,000,000 tons produced of 16.61. The total production of all the companies for the four years covered by this table was 331,779,805 tons. The number of lives lost was 2,210. The production per life lost was 150,127 tons, and the average number of fatalities for each 1,000,000 tons produced was 6.66. These statistics are given in the hope that they will create an ambition on the part of the companies whose records are a proper subject of criticism to make a strenuous endeavor to reduce the loss of life, and on the part of the companies whose records are to be commended to make still greater efforts to protect the lives of their employes.

TABLE 11.—Comparison of production and fatal accidents inside, 1908-1911—inclusive

Names of Companies	1908		1909		1910		1911		Total production in tons of 2,000 pounds	Total number of fatal accidents inside	Number of tons produced per life lost	Fatal accidents per 1,000,000 tons produced
	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside				
Philadelphia and Reading Coal and Iron Co.,	11,929,856	80	11,256,043	66	11,063,293	61	12,368,179	62	46,617,371	269	173,299	5.77
Delaware, Lackawanna and Western Railroad Co.,	9,720,357	61	9,246,954	59	9,426,290	62	9,840,388	56	38,233,989	238	160,647	6.22
Lehigh Valley Coal Co.,	6,588,745	58	6,255,528	37	7,436,690	45	9,000,559	44	29,281,522	184	159,139	6.28
Delaware and Hudson Co.,	7,446,775	36	6,117,629	25	6,608,516	36	6,746,076	53	26,918,996	150	179,460	5.57
Pennsylvania Coal Co.,	5,168,193	38	5,413,452	46	5,618,507	41	6,101,405	38	22,301,557	163	136,819	7.31
Lehigh and Wilkes-Barre Coal Co.,	5,292,486	29	4,776,283	29	4,944,809	48	5,524,611	39	20,538,189	145	141,643	7.06
Lehigh Coal and Navigation Co.,	3,397,421	12	3,370,889	20	4,148,468	22	4,539,724	22	15,456,502	76	203,375	4.92
Scranton Coal Co.,	2,786,801	23	2,628,614	24	2,651,731	18	2,342,864	23	10,410,010	88	118,296	8.45
Totals and averages,	52,330,634	337	49,065,392	306	51,898,304	333	56,463,806	337	209,758,136	1,313	159,755	6.26
Kingston Coal Co.,	2,202,256	13	2,281,692	15	2,509,038	6	2,481,464	13	9,474,450	47	201,584	4.96
Susquehanna Coal Co.,	3,325,048	41	1,745,593	13	1,803,173	11	1,902,020	10	8,775,832	75	117,011	8.55
Hillside Coal and Iron Co.,	1,539,856	10	1,483,103	8	1,585,109	8	2,014,960	8	6,623,028	34	194,795	5.13
Hudson Coal Co.,	796,796	7	1,410,354	8	1,707,611	8	2,410,880	14	6,325,641	37	170,963	5.85
Mineral Railroad and Mining Co.,	593,634	8	1,770,194	24	1,791,606	12	2,019,648	18	6,175,082	62	99,598	10.04
Coxe Brothers and Co., Incorporated,	1,479,828	9	1,154,275	5	1,371,570	7	1,644,965	7	5,650,638	28	201,808	4.96
G. B. Markle and Co.,	1,155,325	9	1,256,820	8	1,214,764	7	1,364,955	6	4,991,864	30	166,395	6.01
Temple Iron Co.,	986,942	20	1,967,740	15	1,016,297	11	*	------	3,970,979	46	86,326	11.58
Summit Branch Mining Co.,	848,005	9	932,393	2	886,192	8	946,963	10	3,613,553	29	124,605	8.03
West End Coal Co.,	808,861	8	696,571	5	735,833	7	845,187	3	3,086,452	23	134,194	7.45
Price-Pancoast Coal Co.,	730,872	7	785,267	6	800,416	4	761,120	80	3,077,675	97	31,729	31.52
Totals and averages,	14,467,423	141	15,484,002	109	15,421,609	89	16,392,162	169	61,765,194	508	121,585	8.22

*Now Forty Fort Coal Co., and Mt. Lookout Coal Co.

TABLE 11.—Continued

Names of Companies	1908		1909		1910		1911		Total production in tons of 2,000 pounds	Total number of fatal accidents inside	Number of tons produced per life lost	Fatal accidents per 1,000,000 tons produced
	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside				
Jermyn and Co.,	648,244	7	854,701	6	725,134	8	701,867	7	2,929,946	28	104,641	9.55
Pardee Brothers and Co.,	552,263	3	580,366	3	703,957	1	755,284	------	2,591,870	7	370,267	2.70
A. Pardee and Co.,	562,635	4	613,467	2	578,135	4	684,698	1	2,438,935	11	221,721	4.51
St. Clair Coal Co.,	552,496	3	477,780	1	495,824	3	439,807	------	1,965,907	7	280,844	3.56
Parrish Coal Co.,	531,189	1	451,012	3	486,878	9	370,087	4	1,839,166	17	108,186	9.24
Mill Creek Coal Co.,	739,700	8	648,645	5	143,894	2	153,253	2	1,685,492	17	99,147	10.09
Plymouth Coal Co.,	414,867	8	403,530	4	387,474	4	396,600	1	1,602,471	17	94,263	10.61
Midvalley Coal Co.,	485,805	3	359,482	1	396,383	------	424,079	1	1,665,749	5	333,150	3.00
Lytle Coal Co.,	423,554	2	356,122	2	387,819	1	382,783	5	1,550,278	10	155,028	6.45
Totals and averages,	4,910,753	39	4,745,105	27	4,305,498	32	4,308,458	21	18,269,814	119	153,528	6.51
Lackawanna Coal Co., Limited,	442,345	5	†	†	549,046	3	540,175	5	1,531,566	13	117,813	8.49
Thomas Colliery Co.,	385,973	6	382,576	1	355,242	1	391,488	5	1,515,279	13	116,560	8.58
Estate A. S. Van Wickle,	356,875	1	368,012	2	354,328	1	348,164	2	1,427,379	6	237,896	4.20
Connell Anthracite Mining Co.,	284,607	2	351,925	------	345,859	------	365,266	------	1,347,607	2	673,803	1.48
C. M. Dodson and Co.,	312,356	3	251,944	2	361,905	------	409,282	4	1,335,487	9	148,387	6.74
Alden Coal Co.,	365,822	------	310,583	------	325,509	2	328,573	------	1,330,487	2	665,243	1.50
Sterrick Creek Coal Co.,	609,686	5	†	†	79,981	------	633,043	3	1,322,710	8	165,339	6.05
Pine Hill Coal Co.,	307,494	3	294,643	1	336,478	------	374,777	1	1,313,392	5	262,678	3.81
Elliott McClure and Co.,	302,897	2	336,984	1	285,149	4	303,159	2	1,228,189	9	136,465	7.33
Oak Hill Coal Co.,	290,282	1	270,717	------	286,080	------	363,149	7	1,210,228	8	151,278	6.61
Excelsior Coal Co.,	266,772	1	282,197	------	299,163	1	319,511	3	1,167,643	5	233,528	4.28
Totals and averages,	3,925,109	29	2,849,581	7	3,578,690	12	4,376,587	32	14,729,967	80	184,125	5.43

†Operated by Temple Iron Co.

Lentz Coal Co.,	334,380	3	304,499	------	480,202	2	§	------	1,119,081	5	223,816	4.47
Harwood Coal Co.,	279,281	2	274,859	1	230,593	------	298,404	1	1,082,637	4	270,659	3.69
Greenough Red Ash Coal Co.,	233,364	1	262,025	------	277,339	3	298,081	1	1,070,809	5	214,162	4.67
Dodson Coal Co.,	219,240	2	253,015	1	289,865	1	271,333	------	1,033,453	4	258,363	3.87
Red Ash Coal Co.,	211,725	------	251,934	1	241,834	2	244,688	2	950,181	5	190,036	5.26
Buck Run Coal Co.,	184,247	3	196,847	1	264,904	------	261,315	------	907,313	4	226,828	4.41
Mt. Jessup Coal Co.,	165,352	1	188,626	1	248,365	1	302,302	1	904,645	4	226,161	4.42
Maryd Coal Co.,	108,778	------	232,260	------	285,080	1	274,541	2	900,659	3	300,220	3.33
Upper Lehigh Coal Co.,	280,588	1	226,252	------	204,791	2	172,401	------	884,032	3	274,677	3.39
Enterprise Coal Co.,	225,026	------	135,996	1	245,184	------	271,797	2	878,003	3	292,668	3.42
Colonial Collieries Co.,	128,243	------	224,934	3	267,583	2	193,583	------	814,343	5	162,869	6.14
Dolph Coal Co.,	234,958	1	193,322	------	191,953	------	186,944	------	807,177	1	807,177	1.24
East Boston Coal Co.,	159,106	------	213,200	2	246,558	------	185,665	2	804,529	4	201,132	4.97
Northwest Coal Co.,	176,857	4	213,580	1	188,688	1	221,503	1	800,578	6	133,430	7.49
Shipman Koal Co.,	101,322	1	175,803	2	245,720	3	254,913	1	777,758	7	111,108	9.00
Forty Fort Coal Co.,	**	------	**	------	**	------	724,123	4	724,123	4	181,031	5.52
Moosic Mountain Coal Co.,	142,588	1	150,382	1	190,555	1	229,976	1	713,501	4	178,375	5.61
Hazle Mountain Coal Co.,	172,795	1	183,401	------	182,149	------	172,565	1	710,910	2	355,455	2.81
Totals and averages,	3,357,800	21	3,680,935	15	4,280,863	19	4,564,134	19	15,883,732	73	217,585	4.60
Northern Anthracite Coal Co.,	154,190	------	174,298	2	166,499	1	199,194	3	694,171	6	115,695	8.64
Girard Mammoth Coal Co.,	173,556	2	102,545	------	177,349	------	235,010	1	688,460	3	229,487	4.36
People's Coal Co.,	220,457	5	192,526	5	125,729	2	137,086	2	675,798	14	48,271	20.72
Truman M. Dodson Coal Co.,	169,679	2	220,252	1	220,750	2	†‡	------	610,681	5	122,136	8.19
Clear Spring Coal Co.,	271,345	5	96,361	2	148,440	3	56,730	2	572,876	12	47,740	20.95
Raub Coal Co.,	134,966	------	116,922	1	150,948	1	102,621	------	505,457	2	282,728	3.54
John S. Wentz and Co.,	150,536	1	157,343	1	120,428	------	136,359	1	564,666	3	188,222	5.31
W. R. McTurk Co.,	148,702	------	152,332	------	115,557	------	147,293	2	563,884	2	281,942	3.55
Green Ridge Coal Co.,	132,545	2	133,404	------	145,910	------	132,871	------	544,730	2	272,365	3.67
M. S. Kemmerer and Co.,	115,688	1	106,702	------	93,292	1	149,611	------	465,293	2	232,646	4.30
O'Boyle-Foy Anthracite Coal Co.,	106,833	------	104,938	------	108,403	------	142,523	1	462,697	1	462,697	2.16
Mt. Lookout Coal Co.,	**	------	**	------	**	------	387,993	7	387,993	7	55,428	18.04
Stevens Coal Co.,	197,861	2	181,544	1	§	------	§	------	379,405	3	126,468	7.91
George F. Lee Coal Co.,	66,949	1	82,802	------	115,323	1	110,622	------	375,696	2	187,848	5.32
Darkwater Coal Co.,	‡	------	65,575	------	97,775	------	115,842	2	279,192	2	139,596	7.16
Trevorton Colliery Co.,	314	------	67,422	------	90,110	------	114,523	1	272,369	1	272,369	3.67
Archbald Coal Co.,	4,400	1	14,366	------	59,357	------	119,240	------	197,363	1	197,363	5.07
Alliance Coal Co.,	------	------	------	------	------	------	175,574	2	175,574	2	87,787	11.39
Harleigh-Brookwood Coal Co.,	------	------	------	------	------	------	128,044	1	128,044	1	128,044	7.81
Totals and averages,	2,048,021	22	1,969,332	13	1,935,860	11	2,651,136	25	8,604,349	71	121,188	8.25
Miscellaneous companies,	579,231	7	582,276	13	926,364	14	670,742	12	2,758,613	46	60,187	16.61

**Operated by Temple Iron Co. ‡Idle. §Now Lehigh Valley Coal Co. ††Now Alliance Coal Co.

TABLE 12.—Companies that had no fatal accidents, 1908-1911, inclusive

Names of Companies	1908	1909	1910	1911
	Production in tons of 2,000 pounds	Production in tons of 2,000 pounds	Production in tons of 2,000 pounds	Production in tons of 2,000 pounds
Buck Ridge Coal Co.,	48,568	143,072	152,334	158,770
Humbert Coal Co.,	73,294	21,857	54,033	86,303
Wolf Coal Co.,	----------	----------	----------	*67,728
Pittston Coal Mining Co.,	70,643	91,946	99,929	61,029
E. S. Stackhouse Coal Co.,	----------	----------	----------	*55,851
Miners Mills Coal Mining Co.,	†	†	†	44,212
John H. Davis Co.,	36,191	32,651	40,451	38,278
Clearview Coal Co.,	4,116	29,580	44,252	35,004
E. White and Co.,	34,280	1,230	15,457	32,983
Yost Mining Co.,	†	†	15,624	31,902
Rissinger Brothers and Co., Incorporated,	----------	----------	----------	*24,064
Schuylkill Lehigh Coal Co.,	----------	----------	----------	*19,301
Bright Coal Co.,	5,376	14,000	14,333	18,474
W. R. McCready,	----------	----------	----------	*12,095
Clinton Falls Coal Co.,	7,171	3,864	4,413	9,296
Lincoln Hill Coal Co.,	----------	----------	----------	*6,571
Thomas R. Reese and Sons,	4,517	6,237	4,023	5,821
Dreshman Coal Co.,	3,283	2,849	2,409	5,814
Outlook Coal Co.,	†	7,049	4,983	5,063
William Niswenter,	†	8,034	5,658	4,651
McCauley Coal Co.,	----------	----------	----------	*3,166
Black Heath Co.,	†	†	3,509	2,212
Moosic Coal Co.,	----------	----------	----------	*1,959
Carleton Coal Co.,	----------	----------	----------	*426

*New operation.
†Not reported.

TABLE 13.—Table showing the average number of days worked by breakers, total production and average production per day for the years 1899-1911, inclusive

Years	Average number of days worked	Production	Average production per day	Production from washeries
1899,	179	54,034,224	301,867	942,344
1900,	176	51,217,318	291,007	1,623,366
1901,	195	59,905,951	307,210	1,794,521
1902,	*116	36,911,549	†318,203	2,648,029
1903,	211	67,171,951	318,350	3,677,909
1904,	213	65,709,258	308,494	3,071,804
1905,	208	70,220,554	337,599	3,480,079
1906,	206	64,410,277	312,671	4,357,502
1907,	227	76,836,082	338,485	5,026,937
1908,	211	74,592,181	353,517	4,139,217
1909,	205	71,628,422	349,407	4,648,716
1910,	212	74,717,852	352,443	4,832,292
1911,	234	81,176,050	346,906	4,067,372

*Strike during the year.
†Washeries worked during the strike. The time was not computed in the average days worked.

TABLE AA Part 1.—Number of gross tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of explosives used, etc., 1900-1911, inclusive

Districts	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production in gross tons	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
									Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
First,	2,498,120	240,636	34,323	2,773,079	229	6,216	22	38	2,179,660	252,076	18,352	521
Second,	4,683,168	540,054	63,237	5,286,459	227	12,073	53	77	5,571,660	1,048,678	28,172	959
Third,	4,131,288	345,604	151,766	4,628,658	212	10,831	110	52	6,010,975	293,370		921
Fourth,	3,793,784	126,011	152,081	4,071,876	214	8,712	27	85	4,653,925	228,195	3,527	770
Fifth,	3,610,682	255,444	44,112	3,910,238	225	7,213	25	36	3,420,250	61,869	35,261	477
Sixth,	4,544,417	479,583	40,732	5,064,682	252	11,038	39	69	4,646,475	238,326	146,445	1,127
Seventh,	4,651,199	575,405	242,715	5,469,319	204	10,562	38	51	3,385,725	450,148	257,520	1,281
Eighth,	3,433,689	456,073	76,695	3,966,457	233	9,028	42	75	2,704,300	1,093,989	47,333	1,070
Ninth,	5,175,102	418,858	200,177	5,794,137	203	10,222	43	46	3,230,598	233,505	63,576	1,139
Tenth,	4,005,431	364,579	53,672	4,423,682	225	9,417	32	43	2,546,900	346,681	428,347	676
Eleventh,	4,881,673	753,460	150,521	5,785,654	249	10,969	33	92	1,050,550	1,713,643	295,603	1,065
Twelfth,	2,614,839	378,708	50,240	3,043,787	261	7,200	23	25	1,433,935	522,113	14,649	702
Thirteenth,	2,967,396	400,061	79,818	3,447,275	241	7,979	32	43	829,925	547,046	115,924	617
Fourteenth,	2,136,033	305,210	35,146	2,476,389	243	5,017	14	51	253,850	763,893	117,698	453
Fifteenth,	3,046,996	347,520	44,798	3,439,314	240	8,042	21	16	975,325	1,322,871	42,111	700
Sixteenth,	2,533,263	308,391	66,685	2,908,339	239	7,106	26	63	1,612,595	313,591	4,280	687
Seventeenth,	3,984,373	529,264	158,067	4,671,704	273	8,647	33	40	166,125	1,734,544	500	372
Eighteenth,	2,453,403	375,365	37,299	2,866,067	233	6,878	25	84	715,235	903,412	103,779	620
Nineteenth,	2,665,280	469,411	38,530	3,173,221	262	7,310	29	54	513,300	767,150	251,750	649
Twentieth,	1,946,553	381,686	35,844	2,364,083	226	5,823	24	64	485,450	458,826	54,248	566
Twenty-first,	1,470,998	120,221	20,411	1,611,630	216	3,055	8	20	1,459,725	75,130	93,189	253
Totals, 1911,	71,227,087	8,171,494	1,776,809	81,176,050	234	173,338	699	1,124	47,846,483	13,369,056	2,122,264	15,625

TABLE AA Part 1.—Continued

	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production in gross tons	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
									Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Totals, 1910,	65,552,437	7,497,228	1,668,187	74,717,852	212	168,175	601	1,050	45,112,322	11,171,458	1,506,140	15,847
Totals, 1909,	62,781,079	7,235,545	1,611,860	71,628,422	205	171,195	567	1,034	41,191,857	10,724,616	666,827	16,122
Totals, 1908,	65,631,537	7,428,600	1,532,044	74,592,181	211	174,503	678	1,170	1,975,232	10,766,245	----------	16,837
Totals, 1907,	67,980,950	7,336,999	1,518,133	76,836,082	227	168,774	508	1,369	1,905,468	10,544,781	----------	17,125
Totals, 1906,	56,624,032	6,426,911	1,359,334	64,410,277	206	166,175	557	1,212	1,614,083	7,980,733	----------	16,972
Totals, 1905,	62,441,134	6,359,289	1,420,146	70,220,554	208	168,254	644	1,289	1,902,820	8,353,594	----------	17,500
Totals, 1904,	58,158,288	6,171,748	1,379,222	65,709,258	213	161,330	595	1,047	1,791,192	6,519,312	----------	17,085
Totals, 1903,	60,231,104	5,710,341	1,230,506	67,171,951	211	158,827	518	1,325	1,701,176	5,317,422	----------	16,872
Totals, 1902,	31,551,813	4,424,779	934,957	36,911,549	116	148,141	300	641	845,147	2,130,965	----------	16,139
Totals, 1901,	53,447,902	5,279,375	1,178,674	59,905,951	195	147,651	513	1,243	1,520,804	4,155,685	----------	16,059
Totals, 1900,	45,271,608	4,880,932	1,064,778	51,217,318	171	143,826	411	1,057	1,237,180	3,454,641	----------	15,708

TABLE AA—PART 2, 1911

Districts	Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
	Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
First,	24	876	78	12,020	12,896	20	-------	42	216	16,270	46	58,405	17,650	18	7
Second,	71	2,518	138	26,320	28,838	40	49	35	374	33,422	65	61,104	29,516	22	24
Third,	24	1,813	104	18,480	20,293	13	-------	36	261	18,302	43	29,536	19,264	14	5
Fourth,	22	2,095	75	18,202	20,297	9	-------	83	255	29,044	43	45 525	30,160	30	6
Fifth,	11	720	79	15,110	15,830	13	-------	63	206	14,288	33	46,020	25,700	8	2
Sixth,	4	1,000	157	26,370	27,370	25	13	54	413	27,196	48	53,600	28,687	14	25
Seventh,	18	486	148	31,827	32,313	28	14	15	558	51,361	49	41,366	24,020	13	28
Eighth,	2	600	151	30,988	31,588	13	5	28	373	28,321	68	62,810	42,860	19	14
Ninth,	54	1,350	139	28,375	29,725	14	5	22	406	41,475	37	44,617	23,983	16	21
Tenth,	33	1,155	91	23,757	24,912	28	15	55	227	28,908	30	29,188	17,560	17	20
Eleventh,	48	1,560	265	51,425	52,985	94	11	16	456	50,147	100	118,476	58,716	12	26
Twelfth,	-------	-------	149	21,550	21,550	14	14	13	297	41,145	32	60,838	14,534	3	14
Thirteenth,	-------	-------	199	27,230	27,230	44	5	5	393	41,962	35	44,483	18,080	3	13
Fourteenth,	39	1,431	112	16,492	17,923	31	4	15	223	27,342	26	37,126	22,649	4	8
Fifteenth,	12	360	142	21,950	22,310	21	3	18	283	32,616	43	50,340	27,168	9	13
Sixteenth,	16	512	137	18,267	18,779	23	-------	9	275	29,360	43	43,123	13,036	6	11
Seventeenth,	6	1,011	168	33,386	34,397	46	2	55	268	42,066	34	57,790	14,880	9	17
Eighteenth,	79	2,550	191	28,055	30,605	36	8	8	229	31,705	53	57,009	29,762	4	19
Nineteenth,	-------	-------	155	27,550	27,550	29	-------	13	369	41,444	39	51,388	19,318	11	13
Twentieth,	7	1,010	174	21,790	22,800	18	-------	25	261	38,406	17	28,195	8,453	9	11
Twenty-first,	26	797	42	5,655	6,452	14	-------	25	109	7,022	17	8,309	4,205	8	1
Totals,	496	21,844	2.894	504,799	526,643	573	148	635	6,452	671,802	901	929,248	490,201	249	298

TABLE A.—Number of each class of employes in each district, 1911

Occupations of Employes	Districts										
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh
Inside											
Mine foremen,	19	22	26	21	17	28	28	25	22	13	39
Assistant mine foremen,	16	31	25	14	26	69	56	48	30	25	68
Fire bosses and assistants,	----------	55	52	54	25	26	63	42	67	74	16
Miners,	1,672	3,080	2,872	2,391	1,914	2,877	2,960	2,818	2,555	2,546	3,075
Miners' laborers,	1,599	3,197	2,866	2,310	1,806	2,623	2,070	1,539	2,357	2,366	1,772
Drivers and runners,	612	1,153	1,148	508	411	1,033	970	902	946	553	516
Doorboys and helpers,	99	156	234	150	86	99	301	161	272	120	125
Pumpmen,	28	91	41	53	37	65	78	115	73	60	100
Company men,	392	863	782	522	454	698	242	661	749	739	631
All other employes,	176	578	601	867	506	826	1,357	558	778	665	1,092
Totals,	4,613	9,226	8,647	6,890	5,282	8,335	8,125	6,869	7,849	7,161	7,434
Outside											
Superintendents,	10	6	11	4	4	5	3	6	7	4	13
Foremen,	19	21	24	24	13	14	28	17	24	13	28
Blacksmiths and carpenters,	92	173	143	98	130	205	110	193	187	145	279
Engineers and firemen,	181	377	195	205	160	286	381	292	350	306	488
Slatepickers (boys),	186	382	445	373	417	382	315	251	299	376	325
Slatepickers (men),	267	464	251	71	168	242	141	186	229	111	245
Bookkeepers and clerks,	32	39	46	49	32	34	50	44	40	47	64
All other employes,	816	1,385	1,069	998	1,007	1,535	1,409	1,170	1,237	1,254	2,093
Totals,	1,603	2,847	2,184	1,822	1,931	2,703	2,437	2,159	2,373	2,256	3,535
Grand totals inside and outside,	6,216	12,073	10,831	8,712	7,213	11,038	10,562	9,028	10,222	9,417	10,969

TABLE A.—Continued

Occupations of Employes	Districts										Grand totals inside and outside
	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	
Inside											
Mine foremen,	11	17	18	15	17	22	17	17	13	10	417
Assistant mine foremen,	66	78	45	57	45	25	32	50	65	13	884
Fire bosses and assistants,	48	13	10	33	42	56	28	39	19		762
Miners,	1,648	1,453	709	2,601	2,136	1,985	1,740	1,967	1,485	840	45,324
Miners' laborers,	1,057	1,265	721	869	803	862	791	853	457	722	32,905
Drivers and runners,	346	301	178	446	325	223	303	328	270	184	11,656
Doorboys and helpers,	70	46	77	64	59	72	63	55	55	66	2,421
Pumpmen,	29	48	30	84	62	19	48	40	35	25	1,161
Company men,	790	807	564	459	630	1,114	655	748	491	215	13,206
All other employes,	1,046	955	893	1,149	876	1,265	940	776	1,263	134	17,301
Totals,	5,111	4,983	3,245	5,777	4,995	5,643	4,617	4,873	4,153	2,209	126,037
Outside											
Superintendents,	1	9	4	5	4	4	13	13	3	5	134
Foremen,	20	31	19	18	17	27	26	26	16	8	433
Blacksmiths and carpenters,	89	194	99	129	106	181	134	155	117	47	3,006
Engineers and firemen,	258	394	227	338	303	279	330	335	285	88	6,058
Slatepickers (boys),	446	402	247	511	404	238	296	345	171	94	6,905
Slatepickers (men),	135	121	63	87	113	139	86	172	18	139	3,448
Bookkeepers and clerks,	44	54	23	53	50	47	37	53	29	15	882
All other employes,	1,096	1,791	1,090	1,124	1,114	2,089	1,339	1,338	1,031	450	26,435
Totals,	2,089	2,996	1,772	2,265	2,111	3,004	2,261	2,437	1,670	846	47,301
Grand totals inside and outside,	7,200	7,979	5,017	8,042	7,106	8,647	6,878	7,310	5,823	3,055	173,338

TABLE B.—Causes of fatal accidents in and about the mines, and number attributable to each cause; number of wives made widows and children made orphans by reason of such accidents, 1911

Causes of Fatal Accidents	Districts															
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth
Inside																
Falls of coal, slate and roof,	11	23	14	14	17	13	14	25	11	15	13	6	17	4	6	10
Mine cars,	3	10	7	4	3	3	2	9	9	3	4	2	4	1	6	4
Explosions of gas,		2	1			5	7	1	1	4		1		1		5
Suffocation by gas, etc.,			72			1	1		5	1			1	2		
Explosions of powder and dynamite,	1	1				4	2	2	2	1		3	1			2
Blasts, premature and otherwise,	1	9	7	7	2	7	5	4	5	5	1	2			1	1
Falling into shafts, slopes, etc.,		1	1		1	1	1	1	4		1	2	2			
Crushed at batteries,							2				1	1				
Kicked by mules, etc.,							1									
Machinery,			1	1		1										
Electricity,										1						
Miscellaneous,	1	3	1	1	1	1	1				1	1	3	1	2	2
Totals,	17	49	104	27	24	36	36	42	37	30	21	18	28	9	15	24
Outside																
Cars,	2	3	1				1		1	1	4	1	2	1	3	
Machinery,	2				1	3	1		1		3	1		3	2	1
Suffocation in chutes, etc.,	1								1		5					
Boiler explosions,			1													
Electricity,										1						
Miscellaneous,		1	4						3			3	2	1	1	1
Totals,	5	4	6		1	3	2		6	2	12	5	4	5	6	2
Grand totals inside and outside,	22	53	110	27	25	39	38	42	43	32	33	23	32	14	21	26

Widows, 425.
Orphans, 1,034.

TABLE B.—Continued

Causes of Fatal Accidents	Districts					Totals	Percentages for 1911	Percentages for 1910	Percentages for 1909	Percentages for 1908	Percentages for 1907	Percentages for 1906	Percentages for 1905	Percentages for 1904
	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first									
Inside														
Falls of coal, slate and roof,	7	9	12	9	3	253	41.14	49.71	51.84	47.65	46.42	46.93	53.54	47.98
Mine cars,	8	3	3	4	-------	92	14.96	18.07	14.49	15.10	14.64	14.69	14.88	14.31
Explosions of gas,	4	1	-------	1	-------	34	5.53	3.93	5.71	9.56	7.32	9.43	5.99	6.05
Suffocation by gas, etc.,	-------	3	-------	-------	-------	86	13.98	2.75	3.47	.67	3.33	1.53	1.81	4.03
Explosions of powder and dynamite,	-------	-------	-------	-------	2	21	3.42	4.32	4.49	3.86	2.83	6.14	2.91	7.06
Blasts, premature and otherwise,	1	2	5	2	-------	67	10.89	11.79	9.59	11.58	11.65	11.62	7.99	6.86
Falling into shafts, slopes, etc.,	1	1	1	3	-------	21	3.42	3.73	3.67	3.69	4.16	4.39	7.80	5.24
Crushed at batteries,	1	-------	-------	-------	-------	5	.81	.59	.82	.34	.33	.44	.55	.61
Kicked by mules, etc.,	-------	-------	1	1	-------	3	.49	.20	1.23	.67	1.33	.66	.36	1.21
Machinery,	-------	-------	-------	-------	1	4	.65	.39	-------	.17	.33	.44	-------	-------
Electricity,	-------	-------	1	-------	-------	2	.32	.59	1.22	.17	.50	-------	-------	-------
Miscellaneous,	4	1	-------	3	-------	27	4.39	3.93	3.47	6.54	7.16	3.73	4.17	6.65
Totals,	26	20	23	23	6	615	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Outside														
Cars,	3	-------	1	1	1	26	30.95	43.48	33.77	42.68	44.86	35.65	24.73	43.44
Machinery,	2	-------	1	-------	1	22	26.19	27.17	25.97	35.37	27.10	22.77	35.48	15.15
Suffocation in chutes, etc.,	1	-------	-------	-------	-------	8	9.53	2.18	12.99	1.22	2.80	8.91	11.83	8.08
Boiler explosions,	-------	-------	-------	-------	-------	1	1.19	-------	-------	1.22	.94	.99	1.08	2.02
Electricity,	-------	-------	-------	-------	-------	1	1.19	-------	-------	1.22	1.87	-------	-------	-------
Miscellaneous,	1	5	4	-------	-------	26	30.95	27.17	27.27	18.29	22.43	31.68	26.88	31.31
Totals,	7	5	6	1	2	84	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Grand totals inside and outside,	33	25	29	24	8	699	-------	-------	-------	-------	-------	-------	-------	-------

TABLE C.—Causes of non-fatal accidents in and about the mines, and number attributable to each cause, 1911

Causes of Non-Fatal Accidents	Districts																						Percentages
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Totals	
Inside																							
Falls of coal, slate and roof,	13	23	12	24	15	21	13	34	10	9	26	7	8	7	5	18	5	16	14	19	10	309	32.46
Mine cars,	11	24	16	24	2	17	15	14	10	12	24	1	7	6	5	8	4	11	9	7	3	230	24.16
Explosions of gas,	----	2	2	2	----	6	----	8	7	2	7	5	9	11	------	4	11	13	11	17	------	117	12.29
Explosions of powder and dynamite,	----	----	1	6	----	4	1	1	----	2	5	6	2	2	1	1	3	4	------	------	2	41	4.31
Blasts, premature and otherwise,	1	10	8	12	6	8	5	9	6	7	5	4	2	1	2	7	2	4	7	3	2	111	11.66
Falling into shafts, slopes, etc.,	----	1	----	----	----	----	1	----	----	1	------	1	1	3	------	3	1	4	1	1	1	19	1.99
Crushed at batteries,	----	----	----	----	----	----	----	----	----	----	----	1	------	1	------	1	1	------	------	------	------	4	.42
Kicked by mules, etc.,	1	3	----	1	1	2	1	----	----	----	3	------	------	------	------	------	1	------	------	1	------	14	1.47
Machinery,	----	----	----	1	----	2	----	1	----	2	------	------	------	1	------	1	------	------	------	4	------	12	1.26
Electricity,	----	----	----	----	----	----	----	----	----	----	------	------	------	------	------	------	------	------	------	------	------	------	------
Miscellaneous,	3	6	4	4	1	3	9	3	10	4	8	------	7	3	1	5	4	13	3	4	------	95	9.98
Totals,	29	69	43	74	25	63	45	70	43	39	78	25	56	35	14	48	32	65	45	56	18	952	100.00
Outside																							
Cars,	4	3	1	1	5	2	2	----	----	4	7	------	------	2	2	9	3	8	4	5	------	62	36.05
Machinery,	1	1	1	4	2	----	1	2	2	----	2	------	1	6	------	1	2	2	3	------	------	31	18.02
Boiler explosions,	----	----	3	----	----	----	----	----	----	----	----	------	------	------	------	------	------	------	------	------	------	3	1.74
Electricity,	----	----	----	----	----	----	----	----	----	----	----	------	------	------	------	------	------	------	------	------	------	------	------
Miscellaneous,	4	4	4	6	4	4	3	3	1	----	5	------	6	8	------	5	3	9	2	3	2	76	44.19
Totals,	9	8	9	11	11	6	6	5	3	4	14	------	7	16	2	15	8	19	9	8	2	172	100.00
Grand totals inside and outside,	38	77	52	85	36	69	51	75	46	43	92	25	43	51	16	63	40	84	54	64	20	1,124	------

TABLE D.—Number of gaseous and non-gaseous mines in operation, number of foremen, assistants and fire bosses; production and percentage of production in gross tons from gaseous and non-gaseous mines and washeries, by districts, 1911

Districts	Gaseous Mines				Non-Gaseous Mines			Production from gaseous mines	Production from non-gaseous mines	Production from washeries	Percentage of production from gaseous mines	Percentage of production from non-gaseous mines	Percentage of production from washeries
	Number of gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen	Number of fire bosses	Number of non-gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen						
First	1	1	1	-------	30	18	15	86,821	2,407,999	278,259	3.13	86.84	10.03
Second	21	18	17	55	14	4	14	3,471,877	1,520,337	294,245	65.67	28.76	5.57
Third	14	16	18	52	10	10	7	3,757,981	541,825	328,852	81.19	11.71	7.10
Fourth	16	16	11	54	13	5	3	2,839,676	727,260	504,940	69.74	17.86	12.40
Fifth	13	8	11	25	19	9	15	2,115,294	1,523,669	271,275	54.10	38.96	6.94
Sixth	18	16	49	26	19	12	20	3,181,197	1,883,485	-------	62.81	37.19	-------
Seventh	46	26	54	63	3	2	2	4,887,702	270,411	311,266	89.37	4.94	5.69
Eighth	17	22	35	42	8	3	13	3,206,531	665,072	94,854	80.84	16.77	2.39
Ninth	19	18	21	67	13	4	9	4,071,840	1,109,976	612,321	70.27	19.16	10.57
Tenth	31	12	20	74	8	1	5	3,626,791	663,054	133,837	81.99	14.99	3.02
Eleventh	35	24	34	16	52	15	34	2,795,446	2,976,334	13,874	48.32	51.44	.24
Twelfth	15	11	66	48	-------	-------	-------	3,043,787	-------	-------	100.00	-------	-------
Thirteenth	28	15	73	13	6	2	5	2,758,598	288,725	399,952	80.02	8.38	11.60
Fourteenth	21	17	45	10	1	1	-------	2,471,198	5,191	-------	99.79	.21	-------
Fifteenth	12	7	22	33	18	8	35	1,957,149	1,482,165	-------	56.91	43.09	-------
Sixteenth	19	6	27	42	26	11	18	1,627,509	1,135,686	145,144	55.96	39.05	4.99
Seventeenth	19	21	20	56	22	1	5	3,786,358	620,826	264,520	81.05	13.29	5.66
Eighteenth	23	12	14	28	20	5	18	1,923,829	942,238	-------	67.12	32.88	-------
Nineteenth	22	15	43	39	12	2	7	2,541,620	503,695	127,906	80.10	15.87	4.03
Twentieth	25	13	65	19	1	-------	-------	1,981,887	181	382,015	83.83	.01	16.16
Twenty-first	-------	-------	-------	-------	13	10	13	-------	1,611,630	-------	-------	100.00	-------
Totals and percentages	425	294	646	762	304	123	238	56,133,091	20,879,759	4,163,200	69.15	25.72	5.13

TABLE E.—Quantity of coal produced by each company that produced 300,000 or more tons, and the number of persons employed, 1911

Names of Companies	Inspection Districts	Production of coal in gross tons	Employes
Philadelphia and Reading Coal and Iron Company,	Twelfth, Thirteenth, Fourteenth, Fifteenth, Sixteenth, Eighteenth, Nineteenth, Twentieth,	11,043,016	27,827
Delaware, Lackawanna and Western Railroad Company,	Second, Third, Fourth, Fifth, Eighth, Ninth, Tenth,	8,786,062	18,639
Lehigh Valley Coal Company,	Fifth, Sixth, Seventh, Eighth, Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth, Eighteenth, Twentieth,	8,036,214	14,658
Delaware and Hudson Company,	First, Second, Sixth, Seventh, Ninth,	6,023,281	12,341
Pennsylvania Coal Company,	Third, Fifth, Sixth,	5,447,683	11,350
Lehigh and Wilkes-Barre Coal Company,	Seventh, Ninth, Tenth, Eighteenth,	4,932,688	9,368
Lehigh Coal and Navigation Company,	Seventeenth,	4,053,325	7,454
Kingston Coal Company,	Eighth, Ninth,	2,215,393	3,334
Hudson Coal Company,	Third, Fourth, Fifth, Sixth, Twenty-first,	2,152,571	4,860
Scranton Coal Company,	First, Second, Third, Fourth,	2,091,843	5,619
Mineral Railroad and Mining Company,	Fifteenth, Sixteenth,	1,803,257	4,701
Hillside Coal and Iron Company,	First, Fifth, Sixth, Twenty-first,	1,799,071	3,554
Susquehanna Coal Company,	Tenth, Thirteenth,	1,698,232	4,169
Coxe Brothers and Company, Incorporated,	Eleventh, Seventeenth, Eighteenth,	1,468,714	2,211
G. B. Markle and Company,	Eleventh,	1,218,710	2,073
Summit Branch Mining Company,	Twentieth,	845,503	2,280
West End Coal Company,	Tenth,	754,631	1,350
Price-Pancoast Coal Company,	Third,	679,571	1,469
Pardee Brothers and Company,	Eleventh,	674,361	1,026
Forty Fort Coal Company,	Eighth,	646,538	1,588
Jermyn and Company,	Fifth,	626,667	1,060
A. Pardee and Company,	Eleventh,	611,333	1,440
Sterrick Creek Coal Company,	Second,	565,217	1,047
Lackawanna Coal Company, Limited,	Second,	482,289	908
St. Clair Coal Company,	Nineteenth,	392,685	700
Midvalley Coal Company,	Fourteenth,	378,642	610
C. M. Dodson and Company,	Eleventh,	365,430	756
Plymouth Coal Company,	Eighth, Ninth,	354,107	858
Thomas Colliery Company,	Thirteenth,	349,543	550

TABLE E.—Continued

Names of Companies	Inspection Districts	Production of coal in gross tons	Employes
Mt. Lookout Coal Company,	Eighth,	346,422	751
Lytle Coal Company,	Nineteenth,	341,771	781
Pine Hill Coal Company,	Nineteenth,	334,622	600
Parrish Coal Company,	Ninth,	330,435	1,051
Connell Anthracite Mining Company,	Twenty-first,	326,130	492
Oak Hill Coal Company,	Nineteenth,	324,240	719
Estate A. S. Van Wickle,	Seventeenth,	310,861	677
Totals,		72,811,268	152,871

The 36 companies named in this table, out of 130 companies in the region, produced 72,811,268 tons, or 89.70 per cent. of the total output, 81,176,050 tons.

TABLE F.—Classification of employes killed or fatally injured in and about the mines, 1899-1911, inclusive

Employes Killed or Fatally Injured	Years													Totals
	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	
Inside														
Mine foremen and assistants,	2		5	2	3	3	1	2	2	3	1	2	2	28
Fire bosses and assistants,	2	5	2	3	2	1	2	6	2	3	2	2	5	37
Miners,	199	184	224	114	202	233	308	226	309	313	264	254	306	3,136
Miners' laborers,	114	95	122	62	110	145	148	133	136	154	126	147	176	1,668
Drivers and runners,	39	33	45	27	46	31	31	32	46	49	37	40	45	501
Doorboys, etc.,	18	8	6	5	12	20	14	9	18	18	11	6	15	160
All other employes,	15	33	37	32	51	63	47	48	88	56	49	58	66	643
Totals,	398	358	441	245	426	496	551	456	601	596	490	509	615	6,173
Outside														
Foremen,	1				1	1		2		2	1		4	12
Blacksmiths and carpenters,	2	2		2	4	5	5	5	1	5	4	6	5	48
Engineers and firemen,	6	2	5	7	6	3	6	3	8	4	7	4	3	63
Slatepickers,	10	9	9	12	9	11	24	14	16	14	7	8	8	151
All other employes,	53	40	58	34	72	79	58	77	82	57	58	74	63	805
Totals,	72	53	72	55	92	99	93	101	107	82	77	92	84	1,079
Grand totals inside and outside,	461	411	513	300	518	595	644	557	708	678	567	601	699	7,252

TABLE G.—Number and causes of fatal accidents in and about the mines, by decades, 1870-1911, inclusive

Causes of Fatal Accidents	1870-1879	Percentages	1880-1889	Percentages	1890-1899	Percentages	1900-1909	Percentages	1910-1911	Percentages	Grand totals	Percentages for 42 years
Inside												
Falls of coal, slate and roof,	927	46.44	1,351	50.37	1,928	51.87	2,291	49.16	506	45.02	7,003	49.39
Mine cars,	263	13.18	470	17.52	535	14.39	710	15.23	184	16.37	2,162	15.25
Explosions of gas,	243	12.17	250	9.32	399	10.74	352	7.55	54	4.80	1,298	9.15
Explosions of powder and dynamite,	76	3.81	82	3.06	117	3.15	206	4.42	43	3.83	524	3.69
Blasts, premature and otherwise,	124	6.21	182	6.79	280	7.53	435	9.34	127	11.30	1,148	8.10
Falling into shafts, slopes, etc.,	100	5.01	117	4.36	178	4.79	241	5.17	40	3.56	676	4.77
Crushed at batteries,	12	.60	5	.19	12	.32	17	.37	8	.71	54	.38
Mules,	16	.80	8	.30	44	1.18	37	.79	4	.36	109	.77
Suffocation,	53	2.66	10	.37	114	3.07	103	2.21	100	8.90	380	2.68
Electricity,							10	.22	5	.44	15	.11
Miscellaneous causes,	182	9.12	207	7.72	110	2.96	258	5.54	53	4.71	810	5.71
Totals and percentages,	1,996	100.00	2,682	100.00	3,717	100.00	4,660	100.00	1,124	100.00	14,179	100.00
Outside												
Cars,	76	30.16	167	39.11	199	31.74	316	38.03	66	37.50	824	35.63
Machinery,	66	26.19	110	25.76	127	20.26	212	25.51	47	26.70	562	24.30
Suffocation in chutes, etc.,	14	5.56	3	.70	33	5.26	54	6.50	10	5.68	114	4.92
Boiler explosions,	21	8.33	29	6.79	36	5.74	9	1.08	1	.57	96	4.15
Electricity,							3	.36	1	.57	4	.17
Miscellaneous causes,	75	29.76	118	27.64	232	37.00	237	28.52	51	28.98	713	30.83
Totals and percentages,	252	100.00	427	100.00	627	100.00	831	100.00	176	100.00	2,313	100.00
Grand totals inside and outside,	2,248		3,109		4,344		5,491		1,300		16,492	

TABLE H.—Nationality of employes killed or fatally injured in and about the mines, 1892-1911, inclusive

Nationality	1892-1895	1896-1900	1901-1905	1906-1910	1911
American,	310	404	617	618	140
English,	124	132	94	78	26
Welsh,	154	176	122	122	19
Scotch,	8	21	12	9	
Irish,	287	332	212	159	28
German,	93	97	97	80	14
Totals,	976	1,162	1,154	1,066	227
Polish,	420	609	669	926	184
Hungarian,	195	186	103	89	9
Italian,	67	68	142	246	50
Slavonian,	30	42	151	200	61
Lithuanian,	17	36	152	321	83
Austrian,	20	39	84	77	22
Russian,	7	39	88	150	43
Greek,	5	15	9	13	6
Swedish,	3	10	4	5	1
French,	1	2	2		
Tyrolean,		3	9	13	1
Bohemian,		1		3	2
Assyrian,			1		
Canadian,			2		
Montenegrian,				2	
Horwat,					2
Magyar,					5
Hebrew,					2
Syrian,					1
Totals,	765	1,050	1,416	2,045	472
Grand totals,	1,741	2,212	2,570	3,111	699

NOTE: During the four years, 1892-1895, more English-speaking employes were killed than foreigners. During the five years, 1896-1900, the number was about the same, but in the five years, 1901-1905, more foreigners were killed, and in the six years, 1906-1911, there were about twice as many foreigners killed. This indicates clearly the change in the character of the mine workers during the years mentioned, there being a constant increase of the foreign element.

TABLE I.—Production of coal; production per employe inside; quantity of explosives used, and production per each pound of explosives used, 1892-1911, inclusive

Years	Production (in tons of 2,000 pounds)	Average number of tons of coal produced per employe inside	Explosives			Average number of tons of coal produced for each pound of explosives used
			Number of pounds of black powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
1892	51,226,977	624	30,981,875	1,092,190		1.59
1893	52,841,110	611	31,723,771	1,324,142		1.60
1894	50,966,920	580	30,755,450	1,713,235		1.57
1895	56,948,756	638	32,766,775	1,797,494		1.65
1896	53,843,249	568	32,117,950	1,733,970		1.59
1897	52,581,036	549	31,804,950	2,415,650		1.54
1898	52,802,594	579	30,670,100	3,025,015		1.57
1899	60,518,331	656	34,317,275	3,649,417		1.59
1900	57,363,396	609	30,929,500	3,454,641		1.67
1901	67,094,665	682	38,020,100	4,155,685		1.59
1902	41,340,935	*482	21,128,675	2,130,965		†1.77
1903	75,232,585	‡737	42,529,400	5,317,422		1.57
1904	73,594,369	667	44,779,800	6,519,312		1.43
1905	78,647,020	676	47,570,500	8,353,594		1.41
1906	72,139,510	627	40,352,075	7,980,733		1.41
1907	86,056,412	730	47,636,700	10,550,191		1.48
1908	83,543,243	672	49,380,800	10,766,245		1.39
1909	80,223,833	651	41,191,857	10,724,616	666,827	1.53
1910	83,683,994	689	45,112,322	11,171,458	1,506,140	1.45
1911	90,917,176	721	47,846,483	13,369,056	2,122,264	1.44

The ton of 2,000 pounds is used so that a comparison can be made with the bituminous production per pound of powder used.

*This decrease in production per employe inside was caused by the small number of days worked on account of the strike.

†The increase in production per pound of powder used was caused by the production of the washeries during the strike.

‡The increase in production per employe was due to the large production of the washeries.

TABLE J.—Number of employes in and about the mines, by counties, 1899-1911, inclusive

Counties	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Carbon,	3,993	4,242	4,365	3,805	4,051	4,467	4,240	4,469	4,782	5,522	5,155	5,362	5,223
Columbia,	2,302	2,033	2,329	2,339	2,236	2,192	2,368	2,246	2,295	2,412	2,393	1,812	2,066
Dauphin,	2,390	2,577	2,353	1,945	2,140	2,113	2,167	2,233	2,124	2,294	2,215	2,229	2,280
Lackawanna,	30,886	32,811	34,798	35,333	37,470	40,675	40,859	41,429	42,742	42,418	44,213	43,214	43,991
Luzerne,	50,803	52,015	53,280	52,766	55,639	59,136	60,734	54,441	58,795	63,099	60,500	59,395	62,880
Northumberland,	14,697	15,105	14,187	14,863	14,580	14,345	15,208	14,730	15,709	15,581	14,878	15,133	15,148
Schuylkill,	33,392	33,259	33,907	34,950	33,443	35,979	40,465	40,289	39,870	40,775	39,457	38,653	39,285
Sullivan,	465	521	434	752	648	665	536	634	719	875	963	920	992
Susquehanna,	1,210	1,250	1,409	1,386	1,363	1,392	1,307	1,320	1,275	1,302	1,227	1,267	1,313
Wayne,	466	11	589	----------	253	366	370	384	463	225	194	190	160
Totals,	140,604	143,824	147,651	148,139	151,827	161,330	168,254	166,175	168,774	174,503	171,195	168,175	173,338

TABLE K.—Production of coal in tons, by counties, 1899-1911 inclusive

Counties	1899	1900	1901	1902	1903	1904	1905
Carbon,	1,636,595	1,663,961	1,659,392	986,127	1,919,662	2,012,064	2,211,077
Columbia,	895,061	875,643	1,080,231	658,991	1,208,843	1,028,236	1,097,944
Dauphin,	729,757	695,656	741,582	377,983	654,437	645,906	645,648
Lackawanna,	13,248,947	12,282,108	15,409,040	10,581,401	17,898,333	16,971,096	17,597,408
Luzerne,	19,899,742	19,179,573	21,396,312	13,016,026	24,891,394	24,736,864	26,779,139
Northumberland,	4,239,547	4,188,343	4,849,099	2,823,273	4,927,304	4,925,578	4,895,097
Schuylkill,	12,226,938	11,606,160	13,640,766	7,698,306	14,633,487	14,440,320	16,049,250
Sullivan,	163,555	209,922	136,165	365,194	262,602	263,772	277,229
Susquehanna,	624,125	496,432	663,487	404,248	714,976	618,250	607,273
Wayne,	275,955	19,520	329,877	----------	61,513	68,172	59,829
Totals,	54,034,224	51,217,318	59,905,951	36,911,549	67,171,951	65,709,258	70,220,554

TABLE K.—Continued

Counties	1906	1907	1908	1909	1910	1911
Carbon,	2,006,092	2,466,538	2,486,559	2,368,747	2,869,794	2,957,574
Columbia,	865,237	1,060,954	1,055,648	975,985	857,272	1,065,836
Dauphin,	656,003	741,054	757,147	832,494	791,243	845,503
Lackawanna,	16,821,929	20,029,829	19,314,281	18,293,939	18,913,322	20,177,155
Luzerne,	23,760,886	27,547,399	28,329,462	27,671,702	28,666,945	31,304,984
Northumberland,	4,792,408	5,951,243	5,417,626	5,346,281	5,646,712	6,347,653
Schuylkill,	14,621,909	18,000,866	16,247,066	14,995,176	15,800,012	17,173,613
Sullivan,	320,203	386,697	491,708	572,514	565,066	640,562
Susquehanna,	501,877	575,079	435,625	526,639	561,436	600,536
Wayne,	63,733	76,423	57,059	44,945	46,050	62,634
Totals,	64,410,277	76,836,082	74,592,181	71,628,422	74,717,852	81,176,050

TABLE L.—Fatal accidents per 1,000 employes in and about the mines, and production in tons per fatal accident, by decades, 1870-1911, inclusive

Years	Employes	Fatal accidents	Fatal accidents per 1,000 employes	Production in tons of 2,000 pounds	Production per fatal accident	Fatal accidents per 1,000,000 tons produced
1870,	55,600	211	5.93	14,172,004	67,166	14.89
1871,	37,488	210	5.60	15,532,252	73,963	13.52
1872,	44,745	223	4.98	15,567,973	69,811	14.32
1873,	48,199	264	5.48	21,001,521	79,551	12.57
1874,	53,402	231	4.33	19,930,240	86,278	11.59
1875,	69,966	238	3.40	23,402,646	98,330	10.17
1876,	70,474	228	3.24	23,440,666	102,810	9.73
1877,	66,842	194	2.90	24,727,213	127,460	7.85
1878,	63,964	187	2.92	20,909,966	111,770	8.95
1879,	68,847	262	3.81	31,036,600	118,460	4.88
Totals and percentages,	559,527	2,248	4.02	209,712,081	93,288	10.72
1880,	73,373	202	2.75	27,974,532	138,488	7.22
1881,	76,031	273	3.59	34,202,558	125,284	7.98
1882,	82,200	291	3.54	35,057,430	120,472	8.30
1883,	91,421	323	3.53	37,747,369	116,865	8.56
1884,	101,073	332	3.28	36,468,738	109,846	9.10
1885,	100,324	332	3.31	38,232,155	115,157	8.68
1886,	103,044	279	2.71	38,950,932	139,609	7.16
1887,	106,517	316	2.97	42,156,300	133,406	7.50
1888,	122,218	364	2.98	46,635,037	128,118	7.81
1889,	119,964	397	3.32	43,650,768	109,952	9.09
Totals and percentages,	977,161	3,109	3.18	381,075,819	122,572	8.16
1890,	119,919	378	3.15	44,986,286	119,011	8.40
1891,	123,308	428	3.47	49,701,322	116,125	8.61
1892,	130,300	418	3.21	51,226,978	122,553	8.16
1893,	138,069	456	3.30	52,841,110	115,880	8.63
1894,	139,939	446	3.19	50,966,920	114,276	8.75
1895,	143,705	421	2.93	56,948,756	135,270	7.39
1896,	150,088	502	3.34	53,843,250	107,257	9.32
1897,	149,557	423	2.83	52,581,036	124,305	8.04
1898,	142,420	411	2.89	52,812,675	128,498	7.78
1899,	140,604	461	3.28	60,518,331	131,276	7.62
Totals and percentages,	1,377,909	4,344	3.15	526,426,664	121,185	8.23
1900,	143,824	411	2.86	57,363,396	139,570	7.16
1901,	147,651	513	3.47	67,094,665	130,789	7.65
1902,	148,139	300	2.03	41,340,985	137,803	7.26
1903,	151,827	518	3.41	75,232,563	145,237	6.89
1904,	161,330	595	3.69	73,594,309	123,688	8.08
1905,	168,254	644	3.83	78,647,020	122,123	8.19
1906,	166,175	557	3.35	72,139,510	129,514	7.72
1907,	168,774	708	4.20	86,056,442	121,549	8.23
1908,	174,503	678	3.88	83,543,243	123,220	8.12
1909,	171,195	567	3.31	80,223,853	141,488	7.07
Totals and percentages,	1,601,672	5,491	3.42	715,235,946	130,256	7.68
1910,	166,175	601	3.57	83,683,994	139,241	7.18
1911,	173,338	699	4.03	90,917,176	130,067	7.69
Totals and percentages,	339,513	1,300	3.83	174,601,170	209,308	7.45
Grand totals and percentages.	4,856,782	16,492	3.40	2,007,051,080	121,699	8.21

ANTHRACITE DISTRICTS

FIRST DISTRICT

LACKAWANNA COUNTY

Carbondale, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the First Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

P. J. MOORE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	31
Number of mines in operation,	31
Number of tons of coal shipped to market,	2,498,120
Number of tons used at mines for steam and heat,	240,636
Number of tons sold to local trade and used by employes,	34,323
Number of tons produced,	2,775,079
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,613
Number of persons employed outside,	1,603
Number of fatal accidents inside of mines,	17
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	29
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside,	163,122
Number of persons employed per fatal accident inside,	271
Number of persons employed per fatal accident outside,	321
Number of persons employed per non-fatal accident inside,	159
Number of persons employed per non-fatal accident outside,	178
Number of wives made widows,	10
Number of children made orphans,	29
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	19
Number of compressed air locomotives used inside,	.....
Number of compressed locomotives used outside,	.....
Number of electric motors used inside,	42
Number of electric motors used outside,	.....
Number of fans in use,	27
Number of furnaces in use,	.....
Number of gaseous mines in operation,	1
Number of non-gaseous mines in operation,	30
Number of new mines opened,	.....
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware and Hudson Company,	1,940,756
Hillside Coal and Iron Company,	232,450
Northwest Coal Company,	197,770
Scranton Coal Company,	142,893
Archbald Coal Company,	109,464
Humbert Coal Company,	77,059
Carbondale Coal Company,	24,012
Morss Hill Coal Company,	21,974
West Mount[illegible]n Coal Company,	15,177
Lincoln Hill [illegible]oal Company,	5,867
Outlook Coal Company,	4,520
Fall Brook Coal Company,	4,137
Total,	2,773,079

Production by Counties

Lackawanna,	2,773,079

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Delaware and Hudson Co.,	12	1	13	19	7	26	161,729	102,145	2,824	859	3,683	235	859	149	123
Hillside Coal and Iron Co.,	2	1	3	3		3	116,225	77,483	207	137	344	104	137	69	
Northwest Coal Co.,	1	1	2	3	1	4	197,770	65,923	336	77	413	336	77	112	77
Scranton Coal Co.,	1	1	2	3		3	142,893	47,631	684	282	966	684	282	228	
Archbald Coal Co.,		1	1		1	1			202	84	286		84		84
West Mountain Coal Co,.	1		1				15,177		33	12	45	33			
Morss Hill Coal Co.,				1		1		21,974	74	38	112			74	
Miscellaneous Companies,									253	114	367				
Totals and averages for district,	17	5	22	29	9	38	103,122	95,023	4,613	1,603	6,216	271	321	159	178

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of roof,	2	....	1	3	1	....	1	1	1	1	....	....	11	64.71
Mine cars,	....	....	....	....	....	....	1	....	....	....	2	....	3	17.65
Explosions of powder and dynamite,	....	....	....	....	....	....	....	....	....	1	....	....	1	5.88
Blasts, premature and otherwise,	....	....	....	....	....	....	....	....	1	....	....	....	1	5.88
Miscellaneous,	....	....	....	....	....	....	....	....	....	....	1	....	1	5.88
Totals,	2	....	1	3	1	....	2	1	2	2	3	....	17	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	1	1	....	....	....	....	2	40.00
Machinery,	....	1	....	....	1	....	....	....	....	....	....	....	2	40.00
Suffocated by sulphur fumes,	1	....	....	....	....	....	....	....	....	....	....	....	1	20.00
Totals,	1	1	....	....	1	....	1	1	....	....	....	....	5	100.00
Grand totals inside and outside,	3	1	1	3	2	....	3	2	2	2	3	....	22	.....

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	....	....	....	....	....	....	....	1	2	....	4	13.79
Falls of roof,	1	....	....	1	3	1	1	....	....	1	1	....	9	31.03
Mine cars,	2	2	1	....	....	....	2	....	....	3	....	1	11	37.93
Blasts, premature and otherwise,	....	....	....	....	....	....	1	....	....	....	....	....	1	3.45
Mules,	1	....	....	....	....	....	....	....	....	....	....	....	1	3.45
By timber falling on him,	....	....	....	1	....	1	....	....	....	....	....	....	2	6.90
By man falling on him,	....	1	....	....	....	....	....	....	....	....	....	....	1	3.45
Totals,	4	4	1	2	3	2	4	....	....	5	3	1	29	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	1	....	....	1	....	2	....	4	44.45
Machinery,	....	....	....	....	....	....	....	....	....	1	....	....	1	11.11
Scalded by steam,	....	....	....	....	....	....	....	....	1	....	....	....	1	11.11
By lever striking him,	....	....	....	....	....	....	....	1	....	....	....	....	1	11.11
By piece of boiler falling on him,	....	....	....	....	....	....	....	....	1	....	....	....	1	11.11
By falling,	....	....	....	....	....	....	....	....	....	1	....	....	1	11.11
Totals,	....	....	....	....	....	1	....	1	3	2	2	....	9	100.00
Grand totals inside and outside,	4	4	1	2	3	3	4	1	3	7	5	1	38	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1				1			1	1	2	1		7
Miners' laborers,	1		1	3			1		1				7
Drivers and runners,							1				2		3
Totals,	2		1	3	1		2	1	2	2	3		17
Outside													
Slatepickers (boys),		1											1
Slatepickers (men),					1								1
Laborers,	1												1
Drivers,								1					1
Brakemen,							1						1
Totals,	1	1			1		1	1					5
Grand totals inside and outside,	3	1	1	3	2		3	2	2	2	3		22

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,		1		1	1	1	3			2	1		10
Miners' laborers,	1	3			2	1	1			2	2		12
Drivers and runners,	3		1	1						1			6
Company men,												1	1
Totals,	4	4	1	2	3	2	4			5	3	1	29
Outside													
Blacksmiths and carpenters,										1			1
Slate pickers (boys),									1				1
Drivers,						1					1		2
Laborers,								1	2				3
Loaders,											1		1
Company men,										1			1
Totals,						1		1	3	2	2		9
Grand totals inside and outside,	4	4	1	2	3	3	4	1	3	7	5	1	38

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	....	1	....	....	2	....	....	1	2	....	8
English,	....	....	1	....	....	....	....	....	....	....	....	....	1
Irish,	....	....	....	....	1	....	....	....	....	....	....	....	1
German,	1	....	....	....	....	....	....	1	....	....	....	....	2
Polish,	1	....	....	1	....	....	....	1	....	1	....	....	4
Italian,	....	....	....	....	1	....	....	....	1	....	1	....	3
Austrian,	....	....	....	....	....	....	....	....	1	....	....	....	1
Russian,	....	....	....	1	....	....	1	....	....	....	....	....	2
Totals,	3	1	1	3	2	....	3	2	2	2	3	....	22

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	1	....	....	....	....	1	2	4	....	....	9
English,	1	1	....	....	....	1	....	....	....	....	....	....	3
Irish,	....	....	....	1	....	....	....	....	1	....	....	....	3
Polish,	1	1	....	1	2	1	1	....	....	....	2	1	10
Italian,	1	....	....	....	1	....	....	....	....	2	2	....	6
Austrian,	....	1	....	....	....	1	1	....	....	1	....	....	4
Russian,	....	1	....	....	....	....	1	....	....	....	1	....	3
Totals,	4	4	1	2	3	3	4	1	3	7	5	1	38

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware and Hudson Co., Coal Brook Colliery:*																
Coal Brook No. 1,	Tunnel,			20 a	5	6	75	1.7			----	2	37,000	36,000	38,000	100
Coal Brook No. 1 Grassy,	Drift,			17 b	4.5	4.5	90	1.2			----	4	87,000	85,000	88,000	135
Coal Brook No. 2 Grassy,	Tunnel,			20 a	5	6	75	1.7			----	2	35,000	32,000	40,000	125
Coal Brook No. 3 Grassy,	Tunnel,			10 c	3	3	90	.6			----	1	22,000	18,000	24,000	80
Coal Brook, Wilces,	Tunnel,			17 b	4	5	75	1.6			----	3	60,000	50,000	65,000	175
Coal Brook, Wilson Creek,	Tunnel,	Non-gas.,	Fan,	20.5d	5	6	90	1.9	Guibal,	Electricity,	----	5	110,000	100,000	118,000	348
Coal Brook No. 1, Pattens,	Tunnel,			20.5d	5	6	90	1.9			----	2	24,000	22,000	26,000	80
Coal Brook No. 2, Pattens,	Tunnel,			20.5d	5	6	90	1.9			----	1	15,000	12,000	18,000	50
Powderly Colliery:																
Powderly,	Tunnel,		Natural,								----	1	20,000	18,000	22,000	75
Powderly,	Slope,	Non-gas.,	Fan,	17	4	5	70	.5	Guibal,	Steam.	----	4	46,000	42,000	48,000	228
Powderly No. 1,	Slope,		Fan,	10	4	4	160	.4	Guibal,	Electricity,	----	3	50,000	45,000	52,000	170
Powderly No. 1,	Tunnel,		Fan,	10	7.5	2.66	140	.8	Guibal,	Electricity,	----	4	100,000	98,000	114,000	185

*Coal Brook has four fans—a, b, c, d.

Jermyn Colliery:																
Jermyn,	Shaft,	Non-gas.,	2 Fans,	20	5	6	78	1.5	Guibal,	Steam,		10	200,000	190,000	225,000	605
				17	5	6	75	.9								
White Oak Colliery:																
White Oak No. 11, Dunmore,	Tunnel,	Non-gas.,	Fan,	17	5	5	90	1.6	Guibal,	Steam,		5	95,000	90,000	98,000	323
White Oak No. 6,	Tunnel,	Non-gas.,	Fan,	10	8	2	100	.8	Buffalo,	Electricity,		2	42,000	40,000	45,000	145
Hillside Coal and Iron Co.																
Erie Colliery:																
Erie,	Shaft,	Non-gas.,	2 Fans,	12	4	4	85	.6	Guibal,	Electricity,		3	60,000	58,000	70,000	207
				24	6	5	75	.8	Guibal,	Steam,						
Northwest Coal Co.																
Northwest Colliery:																
Northwest,	Slope,	Non-gas.,	Fans,	16	4	5	80	1.5	Guibal,	Electricity,		5	100,000	98,000	120,000	336
				20	5	6	70	1.5								
Scranton Coal Co.																
Riverside Colliery:																
Riverside,	Shaft,	Gaseous,	Fan,	20	4	6	90	.6	Guibal,	Steam,		3	40,000	38,000	45,000	140
Raymond Colliery:																
Raymond,	Shaft,	Non-gas.,	Fan,	18	5	5	75	1.0	Guibal,	Steam,		4	70,000	68,000	75,000	278
Raymond No. 3,	Slope,	Non-gas.,	Fan,	14	6	5	85	.75	Guibal,	Steam,		2	25,000	22,000	28,000	107
Raymond No. 2,	Slope,	Non-gas.,	Natural,									1	12,000	10,000	14,000	46
Raymond, Japan,	Slope,	Non-gas.,	Fan,	18	5	5	75	1.0	Guibal,	Steam,		2	45,000	40,000	48,000	100
Black Diamond Colliery:																
Black Diamond,	Drift,	Non-gas.,	Fan,	12	4	4	120	.7	Guibal,	Steam,		1	12,000	10,000	14,000	20
Archbald Coal Co.																
Tappans Colliery:																
Tappans,	Slope,	Non-gas.,	Fan,	16	5	6	65	.25	Guibal,	Steam,		4	60,000	50,000	70,000	202
Humbert Coal Co.																
Sunnyside Colliery:																
Sunnyside,	Tunnel,	Non-gas.,	Fan,	6	3	4	90	.6	Guibal,	Steam,		2	26,000	20,000	27,000	130
Carbondale Coal Co.																
Bolands Colliery:																
Bolands,	Slope,	Non-gas.,	Fan,	10	3	3	65	.1	Guibal,	Steam,		1	12,000	11,000	14,000	56
Morss Hill Coal Co.																
Morss Hill Colliery:																
Morss Hill,	Slope,	Non-gas.,	Fan,	12	3	3	75	.7	Guibal,	Steam,		2	22,000	20,000	24,000	74

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
West Mountain Coal Co.																
West Mountain Colliery:																
West Mountain,	Drift,	Non-gas.,	Fan,	12	3	3	75	.7	Guibal,	Steam,		1	37,000	32,000	42,000	33
Lincoln Hill Coal Co.																
Bartons Colliery:																
Bartons,	Drift,	Non-gas.,	Fan,	8	4	3	200	.7	Guibal,	Steam,		1	9,000	8,000	10,000	38
Outlook Coal Co.																
Outlook Colliery:																
Outlook,	Drift,	Non-gas.,	Fan,	6	3	4	90	.6	Guibal,	Steam,		1	6,000	4,000	7,000	16
Fall Brook Coal Co.																
Murrias Colliery:																
Murrias,	Drift,	Non-gas.,	Natural,									1	4,000	3,000	5,000	13

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware and Hudson Co.						
Coal Brook,	Lackawanna,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Powderly,						
Jermyn,						
White Oak,						
Jermyn Washery,						
Racket Brook Washery,						
Hillside Coal and Iron Co.						
Erie,	Lackawanna,	W. A. May,	Scranton,	W. W. Inglis,	Scranton,	Erie
Northwest Coal Co.						
Northwest,	Lackawanna,	F. Hemelright,	Jermyn,	T. Jenkins,	Carbondale,	N. Y. O. and W.
Scranton Coal Co.						
Riverside,	Lackawanna,	J. R. Bryden,	Scranton,	W. L. Allen,	Peckville,	N. Y. O. and W.
Raymond,						
Black Diamond,*						
Archbald Coal Co.						
Tappans,	Lackawanna,	J. Hughes,	Wilkes Barre,			Delaware and Hudson
Humbert Coal Co.						
Sunnyside,	Lackawanna,	V. L. Petersen,	Scranton,			Erie
West Mountain Coal Co.						
West Mountain,	Lackawanna,	John A. Komara,	Jermyn,			N. Y. O. and W.
Carbondale Coal Co.						
Bolands,	Lackawanna,	John Boland,	Dunmore,			Delaware and Hudson
Morse Hill Coal Co.						
Morse Hill,	Lackawanna,	George Giles,	Carbondale,			Erie

*Abandoned.

TABLE 1—Continued

Names of operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Outlook Coal Co. Outlook,	Lackawanna,	J. H. Rittenhouse,	Scranton,			N. Y. O. and W.
Fall Brook Coal Co. Murrins,	Lackawanna,	Frank Murrin,	Carbondale,			Local sales
Lincoln Hill Coal Co. Bartons,	Lackawanna,	Thomas Parry,	Carbondale,			Delaware and Hudson

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Delaware and Hudson Co.													
Coal Brook,*	Lackawanna,	559,517	21,173	.....	580,690	277	1,399	5	1	703,000	16,506	.....	86
Powderly,		439,849	28,552	.....	468,401	283	878	4	7	183,750	23,070	.....	76
Jermyn,		394,774	16,209	4,619	418,602	268	722	2	10	356,325	12,270	16	50
White Oak,		170,655	21,590	3,159	195,404	254	638	2	8	228,500	59,430	828	37
		1,567,795	87,524	7,178	1,662,497	.....	3,637	13	26	1,471,575	111,276	844	249
Washeries:													
Jermyn,	Lackawanna,	136,216	20,481	.....	156,697	183	16	.....	.....	.....	.....	.....	.....
Racket Brook,		100,668	20,894	.....	121,562	270	30	.....	.....	.....	.....	.....	.....
	.....	236,884	41,375	.....	278,259	.....	46	.....	.....	.....	.....	.....	.....
Totals,	.....	1,804,679	128,899	7,178	1,940,756	.....	3,683	13	26	1,471,575	111,276	844	249
Hillside Coal and Iron Co.													
Erie,	Lackawanna,	206,971	24,053	1,426	232,450	218	341	3	3	165,325	.....	17,508	27
Northwest Coal Co.													
Northwest,	Lackawanna,	179,392	17,527	851	197,770	208	413	2	4	270,530	26,550	.....	50

*The inside workings under Delaware and Hudson Co. The outside workings under Hudson Coal Co.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Scranton Coal Co.													
Riverside,	Lackawanna,	66,156	20,075	590	86,821	202	210	1	1	74,500	1,100	----------	27
Raymond,		29,360	25,940	383	55,683	32	720	1	2	30,625	17,000	----------	67
Black Diamond,		209	120	60	389	2	36	------	------	----------	----------	----------	----------
Totals,		95,725	46,135	1,033	142,893	----------	966	2	3	105,125	18,100	----------	94
Archbald Coal Co.													
Tappans,	Lackawanna,	99,864	6,128	472	106,464	229	286	1	1	96,250	90,000	----------	24
Humbert Coal Co.													
Sunnyside,	Lackawanna,	69,502	7,300	257	77,059	242	190	------	------	89,375	3,700	----------	23
Carbondale Coal Co.													
Bolands,	Lackawanna,	10,427	3,650	9,935	24,012	259	79	------	------	32,750	3,000	----------	12
Morss Hill Coal Co.													
Morss Hill,	Lackawanna,	14,649	2,900	4,425	21,974	156	112	------	1	1,700	4,000	----------	16
West Mountain Coal Co.													
West Mountain,	Lackawanna,	10,211	1,095	3,871	15,177	237	45	1	------	1,310	3,050	----------	9

Lincoln Hill Coal Co.													
Bartons,	Lackawanna,	4,396	799	672	5,867	133	51	------	------	10,250	2,400	----------	3
Outlook Coal Co.													
Outlook,	Lackawanna,	2,304	1,900	316	4,520	215	29	------	------	1,850	----------	----------	2
Fall Brook Coal Co.													
Murrins,	Lackawanna,	----------	250	3,887	4,137	198	18	------	------	3,650	----------	----------	3
Grand totals,		2,498,120	240,636	34,323	2,773,079	--------	6,216	22	38	2,179,660	252,076	18,352	521

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Delaware and Hudson Co.,	Lackawanna,	18	486	36	6,200	6,686	10		35	112	7,049	27	50,100	10,800	11	4
Hillside Coal and Iron Co.,				7	1,425	1,425			5	21	4,255	7	1,733	1,560	2	
Northwest Coal Co.,				4	900	900	3			17	1,320				1	2
Scranton Coal Co.,				19	2,280	2,280	3		2	38	2,396	9	6,152	4,990	3	1
Archbald Coal Co.,		1	50	3	300	350	2			9	530	1	300	225		
Humbert Coal Co.,		3	240			240	1			4	155					
Carbondale Coal Co.,				3	225	225				5	160	1	100	60		
Morss Hill Coal Co.,				2	275	275									1	
West Mountain Coal Co.,		2	100			100				2	110					
Lincoln Hill Coal Co.,				1	75	75				1	40					
Outlook Coal Co.,				2	190	190	1			5	150	1	20	15		
Fall Brook Coal Co.,				1	150	150				2	105					
Totals,		24	876	78	12,020	12,896	20		42	216	16,270	46	58,405	17,650	18	7

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Delaware and Hudson Co.,	Lackawanna,	5	11	----	961	1,014	386	65	11	270	101	2,824	----	6	34	96	46	191	12	474	859	3,683
Hillside Coal and Iron Co.,		1	2	----	75	60	20	3	3	42	1	207	----	2	14	10	13	5	2	91	137	344
Northwest Coal Co.,		2	----	----	127	119	31	10	5	42	------	336	1	1	9	9	2	15	2	38	77	413
Scranton Coal Co.,		3	2	----	276	221	93	14	9	------	66	684	2	3	18	40	74	22	4	119	282	966
Archbald Coal Co.,		1	1	----	85	70	26	5	------	14	------	202	1	1	6	10	14	8	3	41	84	286
Humbert Coal Co.,		1	----	----	56	41	20	------	------	12	------	130	1	1	6	3	16	17	2	14	60	190
Carbondale Coal Co.,		1	----	----	21	20	8	2	------	2	2	56	1	1	2	5	3	3	2	6	23	79
Morss Hill Coal Co.,		1	----	----	32	21	18	------	------	2	------	74	1	1	1	2	8	----	1	24	38	112
West Mountain Coal Co.,		1	----	----	15	9	3	------	------	5	------	33	1	1	1	1	3	----	1	4	12	45
Lincoln Hill Coal Co.,		1	----	----	14	14	3	------	------	------	6	38	1	1	----	2	4	2	1	2	13	51
Outlook Coal Co.,		1	----	----	6	6	1	------	------	2	------	16	1	1	1	2	3	2	1	2	13	29
Fall Brook Coal Co.,		1	----	----	4	4	3	------	------	1	------	13	----	----	----	1	----	2	1	1	5	18
Totals,		19	16	----	1,672	1,599	612	99	28	392	176	4,613	10	19	92	181	186	267	22	816	1,603	6,216

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Delaware and Hudson Co.,	Lackawanna,	24	23	25	22	23	23	17	25	21	23	23	22	271
Hillside Coal and Iron Co.,		18	18	21	18	18	18	17	19	18	18	17	18	218
Northwest Coal Co.,		20	21	25	21	24	23	22	25	22	22	21	22	208
Scranton Coal Co.,		17	15	16	16	18	18	17	18	18	15	17	17	202
Archbald Coal Co.,		21	16	20	18	20	23	23	------	21	23	23	21	229
Humbert Coal Co.,		22	23	22	17	14	23	21	19	21	22	20	18	242
Carbondale Coal Co.,		24	22	22	23	20	16	22	22	21	21	23	23	259
Morss Hill Coal Co.,		23	24	21	20	25	26	17	------	------	------	------	------	156
West Mountain Coal Co.,		25	20	24	22	18	16	17	20	21	18	19	17	237
Lincoln Hill Coal Co.,		------	------	------	18	23	------	------	------	22	24	23	23	133
Outlook Coal Co.,		18	18	18	18	18	18	18	18	18	18	18	17	215
Fall Brook Coal Co.,		23	22	21	22	17	3	------	4	21	20	23	22	198

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Richard Duggan,	American,	Miner,	38	M.	1	3	Powderly,		Fatally injured by fall of roof near face of chamber while trying to take it down.
18	Joseph Teller,	German,	Laborer,	62	S.			Riverside,		Suffocated by inhaling sulphur fumes on ash bank while he was lying down, apparently resting. Outside.
21	Alex Glinskie,	Polish,	Laborer,	38	M.	1	1	Raymond,		Fatally injured by fall of roof while visiting in another chamber.
Feb. 6	Francis Kearney,	American,	Slatepicker,	16	S.			Tappans,		Fatally injured by being caught by revolving shaft in breaker about 7.15 in the morning before time for commencing work. Outside.
Mar. 8	Silas Moon,	English,	Laborer,	40	M.	1	5	West Mountain,		Fatally injured by fall of roof near face of heading while shoveling coal into car. The piece was "saddle" shaped.
April 13	Edward Linnen,	American,	Laborer,	23	S.			Coal Brook,	Lackawanna,	Instantly killed by fall of roof while shoveling coal back from a pillar that was being robbed.
	Joseph Kauzany,	Polish,	Laborer,	21	S.			Coal Brook,		Killed by fall of roof while shoveling coal back from a pillar that was being robbed.
26	Michael Bogusky,	Russian,	Laborer,	21	S.			Northwest,		Fatally injured by fall of roof at face of rock plane while loading a car with rock.
May 3	Bartley Coggins,	Irish,	Miner,	48	S.			White Oak,		Fatally injured by fall of roof at face of chamber before commencing his day's work. He should have taken the piece down the day previous.
4	Daniel Conda,	Italian,	Slatepicker,	50	M.	1	2	Erie,		Fatally injured by breaker machinery while sweeping the breaker in some unknown manner his clothing was caught by a set screw. Outside.

TABLE 4—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
July 12	Edward Kane	American,	Brakeman,	17	S.			Coal Brook,		Fatally injured by being squeezed between mine cars while coupling them together. Outside.
25	John McDonnell,	American,	Laborer,	46	S.			White Oak,		Fatally injured by fall of roof at face of pillar that was being "robbed," while he was barring down some loose coal from the end of pillar.
29	Stanley Klonskie,	Russian,	Driver,	18	S.			Powderly,		Fatally injured by being run over by mine car. The car tipped over on him while running it from a chamber. Died August 11th.
Aug. 7	Lawrence Musial,	Polish,	Miner,	44	M.	1	5	Erie,	Lackawanna.	Fatally injured by fall of roof back from the face of chamber while running away from a shot he was firing. The rock that fell was in the shape of a roll and hard to detect.
24	James Gall,	German,	Driver,	30	S.			Northwest,		Fatally injured by being thrown under mine car. He was riding on the bumper of a loaded rock car with one foot sliding along the rail, when his foot was caught against joint and he was thrown under the car. Outside.
Sept. 2	Paul Kanash,	Austrian,	Miner,	39	M.	1	3	Powderly,		Fatally injured by flying coals from a blast fired by another miner in a cross-cut near the face of heading while he was near the face of airway.
11	Philip Colabro,	Italian,	Laborer,	24	S.			Coal Brook,		Fatally injured by fall of roof near pillar where he and his miner were laying a piece of track preparatory to taking out the pillar.

Oct.	6	John Keichart,	Polish,	Miner,	49	M.	1	5	Erie,		Fatally injured by dynamite powder. While preparing a cartridge for a blast the powder exploded in some unknown manner.
	12	Michael Irving,	American,	Miner,	44	M.	1	3	Jermyn,		Instantly killed at face of heading by fall of roof. After firing a blast he was barring down loose pieces when a large piece fell.
Nov.	18	Wm. McDonough,	American,	Runner,	31	S.			Jermyn,		Compound fracture of leg below the knee by being caught between motor and car. He was sitting on the front end of motor when pushing a car in on a chamber track, when the car jumped off the head end and raised the other end and caught him against the motor. Died in the hospital December 6th, after an operation.
	23	Patrick Horan,	American,	Miner,	65	M.	1		Powderly,	Lackawanna,	Fatally injured by being thrown under mine car in his chamber. He was standing in front of the car, which was being loaded by two laborers, when the gob in front of the car rushed against the car and forced it down the track and Horan was knocked under car.
	25	Anthony Cristo,	Italian,	Driver,	23	M.	1	2	Coal Brook,		Skull fractured in an unknown manner while working as driver. The verdict of the coroner's jury at the inquest held December 6, is as follows: "We, the undersigned, after hearing the testimony of the witnesses, came to the conclusion that Anthony Cristo died at Emergency Hospital December 3, as the result of injuries sustained in the Coal Brook Colliery November 25, 1911."

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 13	Frank Sharples,	English,	Driver,	18	S.	Raymond,		Leg fractured by being caught between spreader of mule and a water pipe on main haulage road.
16	Joe Moncavage,	Polish,	Laborer,	24	S.	Raymond,		Shoulder blade fractured by fall of roof at face of chamber while loading car.
	Edward Burke,	American,	Driver,	16	S.	Powderly,		Arm fractured while coupling cars near foot of slope. A trip jumped off on the slope and struck the cars he was coupling.
20	Alick Fruentine,	Italian,	Driver,	20	S.	Riverside,		Right thigh broken by falling off mining car while riding on bumpers coming out of the heading.
Feb. 13	Alfred Ganzenweller,	Austrian,	Laborer,	21	M.	White Oak,	Lackawanna,	Ribs fractured by another man falling on him while they were riding down a slope on a truck.
14	Joul Morcom,	English,	Miner,	58	M.	Jermyn,		Arm fractured by fall of coal when he returned to face of chamber after firing a blast.
25	Paul Sayfer,	Russian,	Laborer,	43	M.	Erie,		Leg fractured by a prop that was discharged along side of heading road by a trip of cars.
	Andrew Bojinski,	Polish,	Laborer,	39	S.	Erie,		Leg fractured.
March 28	Raymond Oakley,	American,	Driver,	17	S.	Jermyn,		Injured by being caught between cars and side planking while crossing between a trip of cars near head of slope. His light went out. The engineer started the trip to get the water out of the cylinders.

April	5	Thomas Gilhooley,	Irish,	Driver,	23	S.	Jermyn,			Left arm fractured by a prop that he was assisting the timberman to stand. The rail broke on which he was standing and he fell and the prop fell on him.
	11	George Melan,	Polish,	Miner,	40	M.	Morss Hill,			Hip and abdomen bruised by fall of roof at face of chamber while preparing to fire a blast.
May	3	Edward Kosary,	Polish,	Laborer,	28	S.	White Oak,			Leg fractured by fall of roof at face of chamber before commencing his day's work. He had just entered the face of chamber, when the roof fell.
	11	Luegi Fillips,	Italian,	Miner,	40	M.	Powderly,			Skull slightly fractured by fall of roof near face of chamber, after returning from firing a blast.
	13	Michael Vilmont,	Polish,	Laborer,	42	M.	Powderly,			Leg fractured by a piece of roof falling on him while sitting down near face of chamber.
June	2	John Horrison,	Russian,	Miner,	26	M.	Northwest,			Back injured by fall of roof at face of chamber while about to put a cross-timber up.
	5	William Leoon,	Polish,	Laborer,	25	S.	Powderly,			Skull slightly fractured by being struck by a prop that he discharged with a rock that he threw back.
	5	Alfred Morcom,	English,	Driver,	19	S.	Jermyn,			Two toes taken off by being caught between bumper of car and top of rail while riding on bumper of car that jumped off the track.
July	14	William Hofsommer,	Austrian	Laborer,	20	S.	White Oak,	Lackawanna,		Left collar bone broken by mine car he was running down a "run," when the car jumped off the track.
	21	Michael Eshmisky,	Polish,	Miner,	30	S.	Powderly,			Hand cut and side bruised by flying coal from a blast while passing through a cross-cut from the chamber he was working in to another.
	22	Akem Sauce,	Russian,	Miner,	35	M.	Northwest,			Back injured by fall of roof at face of chamber while drilling a hole.
	29	Patrick Cleary,	Irish,	Miner,	35	M.	Powderly,			Hand badly bruised while blocking a car at face of chamber. The wheels ran over the block. Two fingers had to be amputated.
Aug.	14	Michael Kelley,	American,	Laborer,	46	M.	White Oak,			Jaw bone fractured by being struck by lever while putting car on track on rock dump. Outside.
Sept.	5	Cyrus Jenkins,	American,	Laborer,	45	M.	Northwest,			Thigh and leg scalded by steam escaping. While he was repairing a steam pipe, an elbow broke. Outside.
	10	Henry Miller,	American,	Laborer,	26	S.	White Oak,			Leg fractured near ankle by being caught between boiler and rail of track while loading a boiler on a truck. Outside.

TABLE 5—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 19	Joseph Lavelle,	Irish,	Slatepicker,	14	S.	Tappans,		Foot crushed by railroad cars at breaker. During the noon hour the boy jumped on a trip of cars and slipped under them. Outside.
Oct. 4	John Donash,	Austrian,	Laborer,	36	M.	Jermyn,		Leg fractured by fall of roof while helping the miner to tamp a hole at face of chamber.
11	Richard Walsh,	American,	Miner,	30	S.	Jermyn,		Right shoulder dislocated by mine cars toppling over while rounding a curve coming on to heading road from chamber.
22	Lafayette Mathews,	American,	Carpenter,	36	M.	Jermyn,		Two ribs fractured by being caught against timber in shaft while putting a new carriage into place in shaft. Outside.
23	Michael Solisky,	American,	Driver,	18	S.	Powderly,	Lackawanna,	Compound fracture of arm. He was bumped between cars on a passing branch while unhooking his mule.
24	Frank Walsh,	American,	Company man,	19	S.	Jermyn,		Injured by falling. While helping the electrician to wire the mule barn he fell from the place where he was standing, three feet from the floor. Outside.
26	George Montoro,	Italian,	Laborer,	40	M.	White Oak,		Back injured and one rib fractured by being caught by mine car at face of chamber. The mule's harness caught the side of car while passing and pulled the car over the head block in the chamber.
28	Anthony Pitha,	Italian,	Miner,	31	M.	White Oak,		Leg fractured by fall of coal at face of chamber, while barring out a shot.

Nov.	10	James Molinaro,	Italian,	Driver,	17	S.	Coal Brook,		Arm fractured at wrist by falling off a culm car and the car running over it. Outside.
	14	Stephen Cowaniac,	Russian,	Car loader,	25	S.	Jermyn,		Foot cut off at ankle joint. While barring railroad car another car ran into him. Outside.
	15	Frank Ropoche,	Italian,	Miner,	25	M.	White Oak,		Collar bone broken and body injured by fall of coal. After firing a blast in face of chamber he was barring down some loose coal when it fell on him.
	22	Felix Styputski,	Polish,	Laborer,	25	S.	Jermyn,	Lackawanna,	Ribs broken by fall of coal at face of chamber while loading car.
	29	John Lusasko,	Polish,	Laborer,	25	S.	Northwest,		Leg fractured below the knee by fall of roof while working at face of chamber.
Dec.	5	John Novak,	Polish,	Company laborer,	40	M.	Erie,		Left leg fractured below knee by being caught by car. He was waiting along side of track for an empty car into which he was going to load sand when the car jumped off the track.

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY

Coal Brook.—Ventilation, drainage and general condition good.

Powderly.—Ventilation, drainage and general condition good.

Jermyn.—Ventilation, roads and drainage fair; condition as to safety good.

White Oak.—Ventilation good; drainage fair; other conditions good.

HILLSIDE COAL AND IRON COMPANY

Erie.—Ventilation and general condition good.

SCRANTON COAL COMPANY

Riverside.—Ventilation and general condition fair.

Raymond.—Ventilation and general condition good.

Black Diamond.—Ventilation and general condition fair.

NORTHWEST COAL COMPANY

Northwest.—Ventilation, roads and drainage fair; other conditions good.

MORSS HILL COAL COMPANY

Morss Hill.—Ventilation and general condition fair.

CARBONDALE COAL COMPANY

Bolands.—Ventilation and general condition fair.

HUMBERT COAL COMPANY

Sunnyside.—Ventilation bad; other conditions fair.

ARCHBALD COAL COMPANY

Tappans.—Ventilation and other conditions fair.

FALL BROOK COAL COMPANY

Murrins.—Ventilation and other conditions good.

OUTLOOK COAL COMPANY

Outlook.—Ventilation and other conditions fair.

WEST MOUNTAIN COAL COMPANY

West Mountain.—Ventilation and general condition good.

LINCOLN HILL COAL COMPANY

Bartons.—Ventilation and general condition fair.

IMPROVEMENTS

DELAWARE AND HUDSON COMPANY

Coal Brook Colliery.—The electric power plant was enlarged by the addition of a brick building 67x54 feet, and the installation of a 1000 K. W. generator, driven by a Corliss compound engine 24x44x42 inches. A Guibal fan, 12 feet in diameter, driven by a 30 H. P. electric motor was installed. A rock slope, 300 feet in length and

7 feet x 12 feet in area, was driven from Bottom to Third vein and equipped with a 65 H. P. electric hoist. A rock plane, 150 feet in length and 7x12 feet in area, was driven from Top to Grassy vein to improve ventilation. A drift, 7 feet x 12 feet in area and 200 feet in length, was driven from the surface to Third vein, and a 10-foot diameter fan installed driven by electricity.

Powderly Colliery.—At No. 1 tunnel a fan 10 feet in diameter, driven by a 35 H. P. electric engine, was installed for ventilating Third vein. A tunnel, 7 feet x 12 feet in area and 150 feet in length, was driven through a fault in the Top vein. The haulage 1,200 feet in length was converted into an electric motor road. A fan 10 feet in diameter, driven by electricity, was installed to ventilate No. 1 Slope. A 21-ton electric motor transports the coal from No. 1 Carbondale to Powderly breaker. 3,500 feet of rope haulage operated by a 12x15 double drum engine installed for Eastside coal.

Jermyn Colliery.—Norwalk air compressor transferred from Coal Brook. Rock plane, 500 feet in length and 7 feet x 12 feet in area, driven from Bottom to Top Split Grassy vein. Rock slope from surface to Clark vein 7x12 feet in area and 180 feet in length.

White Oak Colliery.—Foundations for new breaker completed. Brick boiler house 88 feet x 50 feet, containing 4 Sterling 300 H. P. boilers, was finished. Built blacksmith shop 36 feet by 24 feet; car shop 48 feet x 30 feet; and supply house 20 feet x 40 feet. No. 6 engine plane extended 500 feet, operated by 14-inch x 20-inch engine. Drove manway for No. 3 Slope 200 feet and concreted top, bottom and sides.

HILLSIDE COAL AND IRON COMPANY

Erie Colliery.—A new culm scraper line has been installed between Erie washery and the old Keystone culm bank, for the purpose of conveying the same to the washery for preparation.

A new concrete building has been erected for storing lime, cement, feed and hay.

Two air compressors have been installed within a corrugated iron building, adjoining the fire room, the compressed air to be used for drilling the rock in New County vein.

A new concrete mule barn of twenty stalls, feed room, etc., has been constructed near the foot of Erie shaft, replacing the outside barn on West Side.

A Sullivan undercutting coal machine has been installed in the New County vein, East Side. Several new counter headings have been completed in this section, doing away with less satisfactory haulage roads.

Considerable culm has been slushed into the Clark vein workings underneath the Lackawanna River.

SCRANTON COAL COMPANY

Riverside Colliery.—Two large locomotive type boilers were installed, displacing nine old cylinder boilers.

Raymond Colliery.—Breaker burned down January 22, 1911, and replaced by a modern breaker of 1,000 tons capacity. The new breaker, which resumed operations December 4, is equipped with the latest improved machinery for the preparation of coal, and has an annex where all the smaller sizes down to No. 3 buck is prepared.

It is lighted by electric lamps, a small engine and dynamo being installed for that purpose. A large water tank has been erected, capacity 50,000 gallons, and connected to the water main. A powerful pump is connected to the tank, and pipes carried to every part of the breaker and annex. This pump is continually under steam, and by simply turning a valve can flood every department of the breaker in a few minutes. A rock slope was driven from the Clark vein to the surface, a distance of 300 feet, on a pitch of 33 degrees. This concentrates the pumping plant at this point and also furnishes an additional second opening.

Black Diamond Colliery.—Abandoned January 19, 1911, the coal being exhausted. The breaker was torn down and the machinery removed to other collieries.

BREAKERS DESTROYED BY FIRE DURING THE YEAR

The production of coal in the First District for the year 1911 was reduced somewhat, owing to the destruction by fire of three breakers. The Raymond breaker of the Scranton Coal Company, was destroyed by fire January 22, and the colliery—a large producer— was idle until December 4.

The Morss Hill breaker of the Morss Hill Coal Company, was destroyed by fire July 27, which left the colliery idle the balance of the year. The company has not commenced to erect a new breaker to take the place of the one destroyed by fire, but expects to do so in the near future.

The Sunset breaker of the Ainsley Coal Company was destroyed by fire May 17, and no steps have been taken to erect a new one. This colliery is a small operation and did not ship any coal during the year.

The Spring Hill Colliery of the Spring Hill Coal Company shut down the first of January, and later on was leased to Watkins and Sons, who have been doing some developing of the property and operating on a small scale at intervals during the year.

SECOND DISTRICT

LACKAWANNA COUNTY

Scranton, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the Second Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

L. M. EVANS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	13
Number of mines,	36
Number of mines in operation,	35
Number of tons of coal shipped to market,	4,683,168
Number of tons used at mines for steam and heat,	540,054
Number of tons sold to local trade and used by employes,	63,237
Number of tons produced,	5,286,459
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	9,226
Number of persons employed outside,	2,847
Number of fatal accidents inside of mines,	49
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	69
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside,	107,887
Number of persons employed per fatal accident inside,	188
Number of persons employed per fatal accident outside,	712
Number of persons employed per non-fatal accident inside,	134
Number of persons employed per non-fatal accident outside,	356
Number of wives made widows,	29
Number of children made orphans,	83
Number of steam locomotives used inside of mines,	4
Number of steam locomotives used outside,	36
Number of compressed air locomotives used inside,	49
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	35
Number of electric motors used outside,	.....
Number of fans in use,	33
Number of furnaces in use,	.....
Number of gaseous mines in operation,	21
Number of non-gaseous mines in operation,	14
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware and Hudson Company (Inside), ... } Hudson Coal Company (Outside), ... }	1,895,055
Scranton Coal Company, ...	901,149
Delaware, Lackawanna and Western Railroad Company, .	800,576
Sterrick Creek Coal Company, ...	565,217
Lackawanna Coal Company, Limited, ...	482,299
Mount Jessup Coal Company, Limited, ...	269,913
Moosic Mountain Coal Company, ...	205,336
Dolph Coal Company, Limited, ...	166,914
Total, ...	5,286,459

Production by Counties

Lackawanna, ...	5,286,459

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),	23	1	24	32	3	35	82,393	69,220	3,523	899	4,422	153	899	110	300
Scranton Coal Co.,	11	.....	11	9	.....	9	81,923	100,127	1,559	719	2,278	142	.....	173	.....
Delaware, Lackawanna and Western Railroad Co.,	5	.....	5	6	.....	6	160,115	133,429	1,509	261	1,770	302	.....	252	.....
Sterrick Creek Coal Co.,	3	.....	3	2	.....	2	188,406	282,609	846	201	1,047	282	.....	423	.....
Lackawanna Coal Co., Limited,	5	1	6	9	2	11	96,460	53,589	713	195	908	143	195	79	97
Mount Jessup Coal Co., Limited	1	1	2	5	.....	5	269,913	53,983	434	300	734	434	300	87	.....
Moosic Mountain Coal Co.,	1	1	2	4	1	5	205,336	51,334	383	67	450	383	67	96	67
Dolph Coal Co., Limited,	.....	.....	.....	2	2	4	.....	83,457	259	205	464	.....	.....	129	103
Totals and averages for district,	49	4	53	69	8	77	107,887	76,615	9,226	2,847	12,073	188	712	134	356

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of roof,	4	----	4	3	3	3	3	1	----	1	----	1	23	46.94
Mine cars,	----	1	----	----	----	----	----	1	4	1	1	2	10	20.41
Explosions of gas,	----	----	----	----	----	----	----	----	----	1	1	----	2	4.08
Explosions of powder and dynamite,	1	----	----	----	----	----	----	----	----	----	----	----	1	2.04
Blasts, premature and otherwise,	1	----	----	2	1	----	----	2	1	----	1	1	9	18.37
Falling into shafts,	----	----	1	----	----	----	----	----	----	----	----	----	1	2.04
By falling,	----	1	----	----	----	----	----	----	----	----	----	----	1	2.04
Struck by wooden rail,	----	----	----	----	----	1	----	----	----	----	----	----	1	2.04
Clothing caught fire,	----	----	----	----	----	----	----	1	----	----	----	----	1	2.04
Totals,	6	2	5	5	4	4	3	5	5	3	3	4	49	100.00
Causes of Accidents Outside														
Cars,	----	----	2	----	----	1	----	----	----	----	----	----	3	75.00
By falling,	----	----	----	1	----	----	----	----	----	----	----	----	1	25.00
Totals,	----	----	2	1	----	1	----	----	----	----	----	----	4	100.00
Grand totals inside and outside,	6	2	7	6	4	5	3	5	5	3	3	4	53	.....

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	----	----	----	----	----	----	----	----	----	----	1	1.45
Falls of roof,	1	6	----	----	1	3	3	1	1	3	3	----	22	31.88
Mine cars,	1	1	1	3	2	----	3	5	2	2	1	3	24	34.78
Explosions of gas,	----	----	----	1	----	----	----	----	----	----	1	----	2	2.90
Blasts, premature and otherwise,	----	----	----	----	----	----	3	2	----	1	2	2	10	14.49
Falling into shafts,	----	1	----	----	----	----	----	----	----	----	----	----	1	1.45
Mules,	----	----	----	----	----	1	----	----	----	----	2	----	3	4.35
Caught by door,	----	----	1	----	----	----	----	----	----	----	----	----	1	1.45
Struck by piece of rock,	----	----	----	----	----	----	----	----	1	1	----	----	2	2.90
Struck by piece of coal,	----	----	----	----	----	----	----	----	----	1	----	----	1	1.45
By falling,	----	1	----	----	----	----	----	----	----	1	----	----	2	2.90
Totals,	2	10	2	4	3	4	9	8	4	9	9	5	69	100.00
Causes of Accidents Outside														
Cars,	1	----	1	----	1	----	----	----	----	----	----	----	3	37.50
Machinery,	----	1	----	----	----	----	----	----	----	----	----	----	1	12.50
Struck by timber,	----	----	----	----	1	----	----	----	----	----	----	----	1	12.50
By mules,	----	----	----	----	----	----	----	----	----	----	1	----	1	12.50
By falling,	----	----	----	1	----	----	----	----	----	----	----	1	2	25.00
Totals,	1	1	1	1	2	----	----	----	----	----	1	1	8	100.00
Grand totals inside and outside,	3	11	3	5	5	4	9	8	4	9	10	6	77	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3		2	4		1		3	3	1		2	19
Miners' laborers	3	1	2	1	4	1	2	1	1	1	3		20
Drivers and runners,		1						1		1		2	5
Doorboys and helpers,									1				1
Rockmen,			1			1							2
Brakemen,							1						1
Bellmen,						1							1
Totals,	6	2	5	5	4	4	3	5	5	3	3	4	49
Outside													
Slatepickers (boys),				1									1
Dumpers,			1										1
Miners,			1			1							2
Totals,			2	1		1							4
Grand totals inside and outside,	6	2	7	6	4	5	3	5	5	3	3	4	53

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	6			1		3	5	3	4	3	2	28
Miners' laborers,	1	4				3	3			2	3	1	17
Drivers and runners,			1	2	1	1	1	3	1		2	1	13
Doorboys and helpers,			1				2			1			4
Company men,					1					1	1	1	4
Surveyors,				1									1
Motormen,				1									1
Footmen,										1			1
Totals,	2	10	2	4	3	4	9	8	4	9	9	5	69
Outside													
Slatepickers (boys),												1	1
Brakemen,			1		1								2
Headmen,				1									1
Laborers,	1	1			1						1		4
Totals,	1	1	1	1	2						1	1	8
Grand totals inside and outside,	3	11	3	5	5	4	9	8	4	9	10	6	77

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	1	----	----	1	1	1	----	----	2	6
English,	1	----	----	----	----	2	----	1	----	1	----	----	5
Welsh,	----	1	----	----	----	----	----	----	1	----	----	----	2
Irish,	----	----	----	1	----	----	----	----	----	----	----	----	1
Polish,	4	----	2	1	2	1	----	----	1	----	2	1	14
Italian,	----	----	1	2	----	----	1	1	----	1	1	----	7
Slavonian,	1	----	1	----	1	----	----	----	----	----	----	----	3
Lithuanian,	----	1	1	----	----	----	----	----	2	1	----	1	6
Austrian,	----	----	----	----	----	----	1	----	----	----	----	----	1
Russian,	----	----	2	1	1	2	----	2	----	----	----	----	8
Totals,	6	2	7	6	4	5	3	5	5	3	3	4	53

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	1	2	3	1	----	1	1	----	3	2	2	16
English,	1	1	----	1	1	1	1	----	----	----	----	1	7
Welsh,	----	----	----	----	----	----	----	1	1	1	----	----	3
Scotch,	----	----	----	----	----	----	----	----	1	----	----	----	1
Irish,	----	----	----	----	----	----	----	1	----	----	----	----	1
German,	----	----	----	----	1	----	1	----	----	1	----	----	3
Polish,	----	1	1	1	----	----	3	3	2	1	----	2	14
Italian,	1	4	----	----	1	----	----	2	----	----	5	----	13
Slavonian,	----	----	----	----	----	3	1	----	----	----	----	----	4
Lithuanian,	1	1	----	----	1	----	----	----	----	2	----	----	5
Austrian,	----	----	----	----	----	----	1	----	----	1	1	----	3
Russian,	----	3	----	----	----	----	1	----	----	----	2	1	7
Totals,	3	11	3	5	5	4	9	8	4	9	10	6	77

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside) Olyphant Colliery																*
Miles Slope,	Slope,	Gaseous,	Fan,	20	5.00	4.00	90	2.00	Guibal,	Steam,		4	93,500	88,200	93,500	206
Grassy Island No. 1,	Shaft,	Non-gas.,	Fan,	18	5.00	4.00	70	1.00	Guibal,	Steam,		3	64,400	58,000	75,800	196
Grassy Island No. 2,	Shaft,	Gaseous,	†									5	127,410	111,703	133,356	231
Grassy Island No. 2,	Slope,	Gaseous,	Fan,	28	7.00	8.00	70	3.50	Guibal,	Steam,		5	107,400	101,225	113,355	300
Eddy Creek Colliery:																
Olyphant,	Shaft,	Gaseous,	Fan,	22	5.00	5.00	96	2.20		Steam,		8	189,750	123,015	247,760	387
No. 4,				8	3.00	2.50	125	2.00		Steam,		2	46,510	42,500	53,240	101
Birdeye, N. C. Vein,	Drift,	Non-gas.,	Fan,	8	3.00	2.00	200	2.00	Guibal,	Electricity,		2	31,150	25,165	37,730	38
Birdeye, County Vein,				10	3.50	2.00	200	1.00		Electricity,		2	49,730	34,410	61,330	100
Legitts Creek Colliery:																
No. 1,				20	6.00	6.00	80	2.60				5	109,460	99,870	122,520	240
No. 2,	Shaft,	Gaseous,	Fan,	20	6.00	6.00	75	2.50	Guibal,	Steam,		5	71,450	64,810	80,210	136
No. 3,				22	5.00	5.00	90	4.00				4	105,800	84,500	119,300	174

*Taken from air reports.
†Ventilated by fan at Grassy Island No. 2 Slope.

Marvine Colliery:															
14ft. and Diamond,	Shaft,	Gaseous,	Fan,	20	6.00	6.00	66	1.10	Guibal,	Steam,	6	209,200	193,700	231,800	300
Clark Vein,				20	6.00	6.00	80	1.10			2	104,320	94,000	107,000	88
Dunmore,				28	7.00	8.00	80	1.10			5	202,440	191,040	210,880	263
Scranton Coal Co.															
Ontario Colliery:															
Ontario,	Tunnel,	Non-gas.,	Fan,	14	4.25	3.50	90	1.00	Guibal,	Steam,	2	69,000	56,600	74,300	141
Klondyke,				12	3.25	3.50	100	1.00			3	66,100	58,800	71,650	156
Sturgess,	Shaft,	Non-gas.,	Fan,	20	6.00	6.25	65	1.20			5	72,650	65,430	81,120	237
Blue Ridge,				15	4.50	4.00	100	.70			2	45,200	31,900	62,000	96
Blue Ridge,	Tunnel,	Non-gas.,	Natural,								1	20,000	13,700	31,400	57
Scranton Coal Co.															
Johnson Colliery:															
No. 1,	Shaft,	Gaseous,	Fan,	30	10.00	8.00	55	2.00	Guibal,	Steam,	9	200,070	149,040	206,390	130
No. 2,		Gaseous,	Fan,	18	5.00	6.00	110	2.00		Steam,	4	78,675	25,350	90,125	152
No. 3,		Non-gas.,	Fan,	10	3.00	3.00	130	.60		Electricity,	2	30,375	Robbing,	33,650	78
Richmond No. 3 Colliery:															
Richmond No. 3,	Shaft,	Gaseous,	Fan,	30.	10.00	10.00	35	.90	Guibal,	Steam,	1	25,500	24,800	26,000	40
Delaware, Lackawanna and Western Railroad Co.															
Storrs Colliery:															
No. 1,	Shaft,	Gaseous,	Fan,	16	4.00	3.25	108	1.20	Guibal,	Steam,	10	170,163	131,686	195,245	413
No. 2,				16	6.00	4.00	120	1.60			10	178,957	159,287	201,946	470
No. 3,				24	8.00	6.00	62	1.30			9	123,828	98,403	192,552	255
Sterrick Creek Coal Co.															
Sterrick Creek Colliery:															
Dunmore Vein,	Drift,	Non-gas.,	Fan,	20	4.50	4.50	70	1.30	Guibal,	Steam,	3	57,400	43,200	58,500	106
Dunmore Vein,	Shaft,	Gaseous,	Fan,	25	5.00	5.50	65	.50			4	88,700	75,100	90,000	180
Clark Vein,	Shaft,	Gaseous,	Fan,	10	3.50	3.50	175	.40			7	87,615	48,685	94,380	259
Lackawanna Coal Co., Limited															
Lackawanna Colliery:															
No. 1,	Shaft,	Gaseous,	Fan,	20	5.00	4.00	75	2.00	Guibal,	Steam,	3	46,550	49,250	65,000	127
No. 4,				22	10.00	8.00	65	3.00			5	81,300	72,150	90,350	344
Mount Jessup Coal Co., Limited															
Mt. Jessup Colliery:															
Peck's Shaft,	Shaft,	Gaseous,	Fan,	18	6.00	4.50	100	1.80	Guibal,	Steam,	6	52,600	39,500	68,500	103

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Moosic Mountain Coal Co.																
Marshwood Colliery:																
Marshwood,	Drift,	Non-gas.,	Fan,	1	4.00	4.50	100	1.80	Guibal,	Steam,	----	6	121,550	62,750	130,200	353
Dolph Coal Co., Limited																
Dolph Colliery:																
Hackley,	Slope,	Non-gas.,	Fan,	2	6.00	4.50	100	1.80	Guibal,	Steam,	----	2	58,445	36,230	58,445	60
Hannah Bell,				2	5.00	4.00	60	1.50			----	2	58,200	38,000	63,250	88

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside) Olyphant, Eddy Creek, Legitts Creek, Marvine, Legitts Creek Washery,	Lackawanna,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	D. and H.
Scranton Coal Co. Ontario, Johnson, Richmond No. 3, Ontario Washery,	Lackawanna,	William L. Allen,	Peckville,	John K. Berkheiser, Inside,	Olyphant,	N. Y. O. and W.
				John J. Aitken, Outside,	Priceburg,	
				Daniel Young,	Scranton,	
				John J. Aitken,	Priceburg,	
Delaware, Lackawanna and Western Railroad Co. Storrs, Storrs Washery,	Lackawanna,	R. A. Phillips,	Scranton,	Walter Reese,	Scranton,	D. L. and W.
Sterrick Creek Coal Co. Sterrick Creek,	Lackawanna,	Frank Hemelright,	Scranton,	Joseph Reese,	Olyphant,	Erie
Lackawanna Coal Co., Limited Lackawanna,	Lackawanna,	Frank Hemelright,	Scranton,	Joseph Reese,	Olyphant,	D. L. and W.
Mount Jessup Coal Co., Limited Mount Jessup,	Lackawanna,			John T. Cartwright,	Peckville,	D. and H., D. L. and W. and N. Y. O and W.
Moosic Mountain Coal Co. Marshwood,	Lackawanna,	Charles P. Ford,	Marshwood,	Charles P. Ford,	Marshwood,	D. L. and W.
Dolph Coal Co., Limited Dolph,	Lackawanna,	W. G. Robertson,	Scranton,	W. G. Robertson,	Scranton,	Erie

TABLE 2.--Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside)													
Olyphant,	Lackawanna,	591,475	101,412	10,175	703,062	248	1,573	10	13	836,835	26,889	15,825	65
Eddy Creek,		507,668	3,030	38	510,736	248	1,226	4	7	645,450			60
Legitts Creek,		298,481		9,725	308,206	212	811	1	3	476,075	21,419		71
Marvine,		251,710	35,479	3,987	291,176	233	793	9	12	460,150	23,125		77
		1,649,334	139,921	23,925	1,813,180		4,403	24	35	2,418,510	71,433	15,825	273
Legitts Creek Washery,	Lackawanna,		81,875		81,875		19						
Totals,		1,649,334	221,796	23,925	1,895,055		4,422	24	35	2,418,510	71,433	15,825	273
Scranton Coal Co.													
Ontario,	Lackawanna,	328,935	43,462	2,695	375,092	259	1,058	4	5	308,875	192,100		117
Johnson,		257,358	45,986	3,735	307,079	176	980	6	4	272,500	37,300		96
Richmond No. 3,		41,513	11,432	37	52,982	103	173	1		92,500	10,500		3
		627,806	100,880	6,467	735,153		2,211	11	9	673,875	239,900		216
Ontario Washery,	Lackawanna,	151,613	14,000	383	165,996	214	67						
Totals,		779,419	114,880	6,850	901,149		2,278	11	9	673,875	239,900		216

Delaware, Lackawanna and Western Railroad Co.													
Storrs,	Lackawanna,	600,504	58,470	5,228	754,202	239	1,762	5	6	953,350	52,852	----------	135
Storrs Washery,		46,374	----------	----------	46,374	67	7	----------	----------	----------	----------	----------	----------
Totals,		736,878	58,470	5,228	800,576	----------	1,770	5	6	953,350	52,852	----------	135
Sterrick Creek Coal Co.													
Sterrick Creek,	Lackawanna,	526,221	34,310	4,686	565,217	294	1,047	3	2	518,525	199,675	----------	113
Lackawanna Coal Co., Limited													
Lackawanna,	Lackawanna,	433,452	40,150	8,697	482,299	298	908	6	11	399,150	175,370	----------	70
Mount Jessup Coal Co., Limited													
Mount Jessup,	Lackawanna,	226,729	34,200	8,984	269,913	247	734	2	5	236,750	36,198	12,347	56
Moosic Mountain Coal Co.													
Marshwood,	Lackawanna,	190,243	11,243	3,845	205,336	249	450	2	5	215,000	254,000	----------	58
Dolph Coal Co., Limited													
Dolph,	Lackawanna,	140,892	25,000	1,022	166,914	143	404	----	4	165,500	19,250	----------	38
Grand totals,		4,083,168	540,054	63,237	5,286,459	----------	12,073	53	77	5,571,660	1,048,678	28,172	959

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),	Lackawanna,	40	1,113	46	9,950	11,063	10	49	------	169	11,530	19	24,800	8,100	3	16
Scranton Coal Co.,		25	655	35	4,200	4,855	9	------	5	84	11,787	15	10,680	7,650	6	2
Delaware, Lackawanna and Western Railroad Co.,		6	750	8	2,400	3,150	5	------	19	29	2,510	3	6,060	4,066	6	2
Sterrick Creek Coal Co.,		------	------	8	1,800	1,800	6	------	------	18	2,290	4	2,764	2,400	1	------
Lackawanna Coal Co., Limited,		------	------	10	2,310	2,310	2	------	8	20	2,480	9	10,500	4,800	2	------
Mount Jessup Coal Co., Limited,		------	------	12	2,940	2,940	2	------	------	14	695	4	3,300	1,600	------	1
Moosic Mountain Coal Co.,		------	------	7	525	525	3	------	------	5	375	6	1,500	600	1	------
Dolph Coal Co., Limited,		------	------	12	2,195	2,195	3	------	3	35	1,755	5	1,500	300	3	3
Totals,		71	2,518	138	26,320	28,338	40	49	35	374	33,422	65	61,104	29,516	22	24

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slatepickers (boys)	Slatepickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),	Lackawanna,	6	8	26	1,105	1,290	465	42	21	463	97	3,523	------	8	44	139	40	188	11	469	899	4,422
Scranton Coal Co.,		5	10	7	513	424	255	39	29	------	277	1,559	2	4	37	104	90	189	5	288	719	2,278
Delaware, Lackawanna and Western Railroad Co.,		3	3	11	494	556	125	23	10	180	104	1,509	------	2	12	36	75	----	4	132	261	1,770
Sterrick Creek Coal Co.,		2	5	3	301	304	106	18	5	64	38	846	------	1	13	15	35	19	4	114	201	1,047
Lackawanna Coal Co., Limited,		1	2	4	245	248	55	17	13	90	38	713	1	1	19	17	26	32	4	95	195	908
Mount Jessup Coal Co., Limited,		1	1	4	144	172	54	9	7	42	------	434	1	3	16	26	68	9	3	174	300	734
Moosic Mountain Coal Co.,		2	----	----	141	140	59	8	3	13	17	383	1	1	11	16	----	----	2	36	67	450
Dolph Coal Co., Limited,		2	2	----	137	63	34	------	3	11	7	259	1	1	21	24	48	27	6	77	205	464
Totals,		22	31	55	3,080	3,197	1,153	156	91	863	578	9,226	6	21	173	377	382	464	39	1,385	2,847	12,073

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),	Lackawanna,	17	18	22	18	21	21	14	22	20	21	20	21	235
Scranton Coal Co.,		18	16	20	16	18	17	14	11	10	14	13	12	179
Delaware, Lackawanna and Western Railroad Co.,		21	15	14	17	22	23	21	22	21	21	21	21	239
Sterrick Creek Coal Co.,		23	23	27	21	25	26	24	26	24	25	25	25	294
Lackawanna Coal Co., Limited,		24	23	27	23	25	26	24	27	25	24	25	25	298
Mount Jessup Coal Co., Limited,		21	20	21	18	21	22	20	21	21	21	21	20	247
Moosic Mountain Coal Co.,		19	20	22	18	21	22	21	22	21	22	21	20	249
Dolph Coal Co., Limited,		13	13	15	11	12	12	9	12	11	11	12	12	143

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Martin Pictavage,	Polish,	Miner,	27	M.	1	1	Johnson,	Lackawanna,	Killed by powder near face of chamber. He placed some powder in a tin can and held a light under it to thaw it, when it exploded.
16	Peter Recklace,	Polish,	Miner,	30	S.			Storrs,		Killed by premature blast in face of chamber. A squib missed fire and he returned to light another, and just as he was turning away, the charge exploded.
17	Joseph Drust,	Polish,	Laborer,	25	S.			Olyphant,		Killed by fall of slip roof, in face of chamber.
21	George Brenski,	Polish,	Laborer,	24	S.			Johnson,		Killed by fall of bell roof in face of chamber.
	Griffith Griffiths,	English,	Miner,	40	S.			Olyphant,		Killed by fall of slip roof in face of chamber.
25	Joseph Mattis,	Slavonian,	Laborer,	45	M.	1	3	Ontario,		Killed by fall of slip roof in face of chamber.
Feb. 1	Joseph Kerpavitz,	Lithuanian,	Laborer,	27	S.			Marvine,		Killed by cars on slope. The breaking of a rope hook caused a trip to run away into the manway, where the victim was sitting.
9	Fred Howell,	Welsh,	Driver,	17	S.			Richmond No. 3,		Fatally injured by falling on the sharp edge of a tie on gangway road, while running after car to sprag it.
Mar. 10	John Robber,	Russian,	Rockman,	36	M.	1	3	Olyphant,		Killed by falling into shaft. The noise of ice falling in the shaft frightened him and he jumped off the cage.
	Andrew Mascheck,	Slavonian,	Dumper,	37	M.	1	4	Mt. Jessup,		Killed by cars. He was dumping a swiveled rock car and did not take his head far enough out of the way when he was taking the body of the car back. Outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Mar. 13	Joseph Kowaluis,	Lithuanian,	Miner,	52	M.	1	3	Marvine,		Killed by fall of slip roof in face of chamber.
22	Nicholas Koleschuck,	Russian,	Miner,	43	M.	1	3	Marshwood,		Leg fractured by fall of slip roof in face of chamber. Died in hospital April 13.
27	George Slonckon,	Polish,	Laborer,	45	M.	1	2	Eddy Creek,		Killed by fall of roof in face of working place. He knocked out a prop because it was in his way to load a car, and the roof fell on him.
31	Simon Haraisog,	Polish,	Laborer,	48	M.	1	2	Olyphant,		Killed by fall of slip roof in face of chamber.
	Frank Patruchi,	Italian,	Miner,	34	M.	1	2	Marshwood,		Fatally injured by falling off cars in getting off the work train. Outside.
April 6	George M. Mardon,	American,	Slatepicker,	16	S.			Olyphant,	Lackawanna,	Killed by falling over high chute in breaker. He was climbing up and slipped on the sheet iron. Outside.
	Berrizo Lucetta,	Italian,	Miner,	38	M.	1	3	Ontario,		Killed by fall of roof in face of chamber. He had just removed a small pillar, causing a fall of roof, and when he returned to examine conditions the second fall occurred.
7	Comfack Sidora,	Italian,	Miner,	38	M.	1	4	Lackawanna,		Killed by fall of bell roof in face of chamber.
15	Vola Wermeitizo,	Polish,	Laborer,	29	S.			Legitts Creek,		Killed by fall of slip roof in face of chamber.
19	Thomas Walsh,	Irish,	Miner,	42	M.	1	5	Eddy Creek,		Killed by blast in face of chamber. He fired two charges at the same time. He thought he heard both shots go off, and returned to examine when the other shot went off.

April	25	Joseph Sorrocko,	Russian,	Miner,	31	M.	1	2	Marvine,			Killed by blast in face of chamber. He went back to what he thought was a missed squib just as the shot exploded.
May	2	Paul Dominick,	Russian,	Laborer,	35	M.	1	12	Olyphant,			Killed by fall of bell rock in face of chamber.
	4	Roma Stahura,	Polish,	Laborer,	42	M.	1	3	Johnson,			Killed by fall of bell roof in face of chamber.
	8	Wladisof Andreiski,	Polish,	Laborer,	21	S.			Marvine,			Killed by fall of bell roof in face of chamber.
	22	Frank Ewna,	Slavonian,	Laborer,	23	S.			Eddy Creek,			Killed by blast near face of chamber. He went around the pillar to notify the miner next to him that they were going to fire in the crosscut, and he stood directly where the blast broke through.
June	9	George Plomes,	Polish,	Miner,	51	M.	1	3	Lackawanna,			Killed by falling under cars, while riding between cars from the shaft to the breaker on his way home. Outside.
	10	Charles Mincher,	English,	Bellman,	67	M.	1		Olyphant,			Fatally injured by a wooden rail that he allowed to project into the shaft while a cage was passing.
		John Opelinick,	Russian,	Laborer,	30	M.	1		Mt. Jessup,	Lackawanna,		Killed by fall of bell roof in face of chamber.
	23	Ephraim Blackman,	English,	Miner,	43	M.	1	2	Olyphant,			Killed by fall of roof in face of chamber. He failed to take down dangerous roof as ordered by the foreman.
	26	Anthony Witiack,	Russian,	Rockman,	45	M.	1	6	Olyphant,			Killed by fall of bell roof in face of chamber.
July	18	Edward Williams,	American,	Brakeman,	20	S.			Storrs,			Killed by fall of roof on gangway road. A derailed car discharged a prop, and while lifting it to the track a slab of roof fell on him.
	19	John Petrara,	Austrian,	Laborer,	21	S.			Lackawanna,			Killed by fall of roof in face of chamber while cleaning up to stand a prop under it.
	27	James Romanch,	Italian,	Laborer,	25	M.	1	1	Sterrick Creek,			Killed by fall of roof in face of chamber while assisting his miner to take it down .
Aug.	2	John Prone,	Italian,	Miner,	30	S.			Ontario,			Fatally injured by blasting in face of chamber while running away from blast.
	8	Joseph Lukitiz,	Russian,	Miner,	40	M.	1	2	Lackawanna,			Killed by cars on gangway road. A motor was pushing a trip of cars when the first car became derailed and squeezed him against the rib.
	19	Votchel Kolaba,	Russian,	Laborer,	28	S.			Lackawanna,			Killed by blast in face of chamber. He was assisting his miner, who was seriously injured to tamp a hole when it exploded.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 23	John E. Jones,	American,	Runner,	19	S.			Olyphant,		Fatally burned by fire. A spark from his lamp set fire to his clothing.
26	William Baimbridge,	English,	Miner,	26	M.	1		Sterrick Creek,		Killed by fall of bell roof in face of chamber.
Sept. 12	John Zaboter,	Lithuanian,	Miner,	35	M.	1	2	Marvine,		Killed by cars on the Dunmore rock slope. They were walking down the slope, when the rope broke, causing a runaway.
	Paul Tyzsta,	Polish,	Miner,	32	S.					
	Alex Kenevits,	Lithuanian,	Laborer,	35	M.	1	3			
14	Thomas Prosser,	American,	Doortender,	16	S.			Lackawanna,		Killed by falling under motor on gangway road. He was riding on the motor and in some way fell off.
22	Thomas Astin,	Welsh,	Miner,	35	M.	1	2	Storrs,	Lackawanna,	Killed by premature blast in face of chamber while tamping a hole.
Oct. 2	William Kropas,	Lithuanian,	Driver,	18	S.			Storrs,		Killed by cars on gangway road. He was riding on the bumper of a car going through a door. The mule pushed the door open with its nose, which caused the door to rebound and threw the victim under the car.
13	John Jumbellonia,	Italian,	Laborer,	20	S.			Sterrick Creek,		Killed by fall of slip roof in face of chamber.
17	Frank Etheleringham,	English,	Miner,	40	M.	1	2	Johnson,		Fatally burned by an explosion of fire-damp. He went into some abandoned workings and lit a pocket of gas.
Nov. 7	Joseph Grubolski,	Polish,	Laborer,	44	S.			Johnson,		Fatally injured by cars on slope. He attempted to get on the trip after the signal had been given the engineer to lower the trip.
15	Anthony Perloski,	Polish,	Laborer,	20	S.			Storrs,		Fatally burned by explosion of fire-damp in abandoned workings. He went beyond the danger signal.

Nov.	22	August Mashie,	Italian,	Laborer,	21	S.			Ontario,	Lackawanna,	Killed by blast in face of chamber. He was loading a car while the miner was tamping a hole, and the hole exploded.
Dec.	3	Tufel Swatski,	American,	Driver,	17	S.			Johnson,		Killed by cars on top of plane. He attempted to get on a trip of cars as they were coming over the head. The car became derailed, and he was squeezed between prop and car.
	5	Stanley Bersheck,	Polish,	Miner,	36	M.	1	2	Eddy Creek,		Killed by fall of bell roof in face of chamber.
	15	Peter Komar,	Lithuanian,	Miner,	40	M.	1	6	Marvine,		Killed by blast near face of chamber. The blast went off while he was getting out of the way.
	30	James Coyle,	American,	Runner,	18	S.			Marvine,		Killed by cars on gangway road. He was standing along side of track waiting to sprag cars when the cars became derailed in passing.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	James Dickson,	English,	Miner,	39	M.	Marshwood,		Leg fractured by fall of bell rock in face of chamber.
14	Frank Candie,	Italian,	Laborer,	42	M.	Olyphant,		Leg amputated by cars. He was getting down from a car when it was bumped from the rear and he fell under it. Outside.
17	Michael Loftus,	Lithuanian,	Laborer,	25	S.	Marvine,		Collar bone broken by falling under cars on gangway road while riding on the bumper.
Feb. 3	Peter Havzavage,	Russian,	Miner,	34	M.	Lackawanna,		Arm and nose broken by fall of roof in face of chamber while examining after a blast.
	George Mardon,	Polish,	Laborer,	21	S.	Lackawanna,		Legs fractured by falling into shaft. He signaled for the cage, and while waiting for the cage, stumbled into the shaft.
6	Peter Valtz,	Russian,	Loader,	23	M.	Lackawanna,	Lackawanna,	Leg fractured by machinery. His clothing was caught in a rope that was used to pull cars over the scales, and he was drawn under the drum. Outside.
8	Louis Mashala,	Italian,	Miner,	35	M.	Mt. Jessup,		Injured by fall of slip rock in face of chamber.
	Andrew Baldine,	Italian,	Laborer,	29	S.			
9	Julius Bertilio,	Italian,	Laborer,	22	S.	Sterrick Creek,		Back broken by fall of slip coal in face of chamber.
17	John Kowala,	Russian,	Miner,	37	S.	Olyphant,		Leg fractured by fall of slip roof in face of chamber.
20	Peter Boland,	American,	Miner,	32	M.	Olyphant,		Leg fractured by falling on gangway road.
	Edward Williams,	English,	Miner,	53	M.	Olyphant,		Leg fractured by fall of slip roof in face of chamber.
23	John Clemeshefski,	Lithuanian,	Laborer,	42	M.	Marvine,		Leg fractured by cars on chamber road. A car that became derailed by bumping the head-block fell on him.

Feb.	25	Charles Cardoni,	Italian,	Miner,	24	S.	Mt. Jessup,			Leg fractured by fall of roof in face of chamber while barring it down.
Mar.	2	William Davis	American,	Brakeman,	18	S.	Lackawanna,			Foot crushed by cars. While running ahead to turn the switch he stumbled and fell under the motor. Outside.
	9	Charles McAllister,	American,	Driver,	18	S.	Storrs,			Legs fractured by cars on gangway road. He was riding on the bumper of a car, which became derailed and fell on him.
	27	Stanley Novak,	Polish,	Doortender,	17	S.	Lackawanna,			Arm fractured by a door. While he was opening a door a sudden pressure came against it and squeezed his arm between door and frame.
April	6	Leroy Walter,	English,	Headman,	16	S.	Marshwood,			Wrist fractured by falling over trestle. He was running after a car to take off a ticket and stumbled. Outside.
	14	James Coleman,	American,	Driver,	18	S.	Storrs,			Shoulder fractured by cars on gangway road. He stumbled while walking by the side of the mule and fell under the cars.
	24	Anthony Stevetski,	Polish,	Driver,	18	S.	Storrs,			Leg fractured by cars on gangway road. He was riding on the bumper of a car, which became derailed and fell on him.
	27	Allen Stone,	American,	Surveyor,	19	S.	Lackawanna,	Lackawanna,		Burned by explosion of gas in abandoned workings. He was surveying and lit a pocket of gas.
	29	Frederick Hartman,	American,	Motorman,	18	S.	Olyphant,			Arm fractured by cars on gangway road. His arm was caught while coupling cars in motion.
May	9	Bascelo Rich,	Italian,	Laborer,	27	S.	Eddy Creek,			Ankle fractured by prop falling on it while unloading props from the cars. Outside.
	10	John Fanning,	American,	Brakeman,	19	S.	Dolph,			Leg fractured by being caught by cars while uncoupling them. Outside.
	11	Joseph Grueski,	Lithuanian,	Miner,	55	M.	Ontario,			Hip fractured by fall of slip rock in face of chamber.
	23	Archbald Allison,	English,	Runner,	19	S.	Dolph,			Leg fractured by cars on gangway road. His clothing caught while spragging a car.
	27	John Reis,	German,	Company man,	43	M.	Johnson,			Leg fractured by cars on gangway road. When last seen he was sitting by the track. He was unable to explain how the accident occurred, so it is supposed he fell asleep.
June	8	John Dobranski,	Slavonian,	Runner,	17	S.	Olyphant,			Jaw fractured by kick from mule on gangway road.
	14	Metro Gozelok,	Slavonian,	Laborer,	30	M.	Eddy Creek,			Skull fractured by fall of slip roof in face of chamber.

TABLE 5—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 15	George Barres,	English,	Laborer,	35	M.	Eddy Creek,		Leg fractured by fall of slip roof in face of chamber.
22	Joseph Barilka,	Slavonian,	Laborer,	52	M.	Olyphant,		Leg fractured by fall of slip roof in face of chamber.
July 15	Joseph Shenbaris,	Polish,	Miner,	35	M.	Ontario,		Arm and eye injured by premature blast. He was forcing powder into the hole when it exploded.
	Joseph Dixon,	English,	Door-tender,	59	M.	Marvine,		Leg fractured by cars on gangway road. He failed to get out of the way of a car that was being run out of a chamber.
19	Mike Lishko,	German,	Miner,	36	M.	Storrs,	Lackawanna,	Foot crushed by cars in face of chamber. The mule's harness caught in the car, and threw it over on victim's foot.
	Antnhony Semelick,	Russian,	Laborer,	22	S.	Olyphant,		Leg fractured by blast in face of chamber. The powder exploded while he was tamping the hole.
20	Victor Chamiel,	Polish,	Miner,	35	M.	Ontario,		Arm fractured by blast in face of chamber. He thought the squib missed, and when he returned it exploded.
25	Edward White,	American,	Runner,	23	M.	Johnson,		Arm fractured by fall of slip roof on gangway road.
26	Walter Krovitz,	Austrian,	Door-tender,	16	S.	Lackawanna,		Leg fractured by cars on top of plane. Two cars came together while he was passing between them.
27	Michael Zoak,	Slavonian,	Laborer,	30	M.	Sterrick Creek,		Leg fractured by fall of slip roof in face of chamber.
	Barney Sherlenski,	Polish,	Laborer,	28	S.	Storrs,		Leg fractured by fall of slip roof in face of chamber.

Aug.	1	Walter Reese,	Welsh,	Runner,	19	S.	Marvine,		Hand crushed by cars on gangway road. He was sanding the rails and in some manner his hand was caught between the cars.
	5	William Simpson,	Italian,	Miner,	33	M.	Dolph,		Skull fractured by blast in face of chamber. The miner next to him warned him that he was firing in the crosscut, but for some reason Simpson walked back and stood where the crosscut broke through.
		George Sasfire,	Polish,	Miner,	35	M.	Eddy Creek,		Collar-bone broken by being squeezed between car and pillar on gangway road. While getting out of the way of a kicking mule.
		Peter Patrissi,	Italian,	Miner,	23	S.	Marshwood,		Leg fractured by cars on gangway road. A trip of cars in passing struck a piece of plank on which he was standing.
	9	John Isaacs,	American,	Runner,	24	S.	Marshwood,		Pelvis fractured by cars on gangway road. He was standing by car on turnout, when a passing trip became derailed and crushed him against the pillar.
	19	Peter Hesavige,	Polish,	Miner,	38	M.	Lackawanna,	Lackawanna,	Seriously injured by blast in face of chamber. He and his laborer were tamping a hole when it exploded. The laborer was killed.
	21	Patrick Gallagher,	Irish,	Miner,	31	S.	Legitts Creek,		Leg fractured by fall of roof in face of chamber while standing a prop under it.
	25	Brunick Machinick,	Polish,	Driver,	16	S.	Marshwood,		Leg fractured by cars on gangway road. While walking by his team he stumbled and fell under cars.
Sept.	5	John B. Malcolm,	Scotch,	Miner,	47	M.	Marvine,		Leg fractured by fall of slip rock on tunnel road.
	12	Frank Thitlowski,	Polish,	Miner,	30	M.	Marvine,		Seriously injured by trip of runaway cars on rock slope. He was walking down the slope in company with three other men, who were killed, when the rope broke.
	23	Michael Macovitch,	Polish,	Driver,	20	S.	Lackawanna,		Skull fractured by cars on chamber road. He was riding on head end of car, which became derailed.
	29	Benjamin Lewis,	Welsh,	Miner,	56	M.	Olyphant,		Arm broken by being struck by a piece of rock. His partner was breaking rock with a hammer.
Oct.	2	George Sanders,	American,	Miner,	38	M.	Marvine,		Leg fractured by fall of slip roof in face of chamber.
	5	Joseph J. Barrett,	American,	Footman,	22	M.	Legitts Creek,		Leg fractured by piece of coal falling down the shaft, while he was lifting on a derailed car.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 10	Adam Bosack,	Austrian,	Laborer,	25	M.	Olyphant,		Leg fractured. He stumbled while walking along the chamber road.
11	Martin Thomascheng,	Lithuanian,	Miner,	45	M.	Marvine,		Rib fractured by blast. The miner in the next place warned him that he was going to fire, but the victim refused to get out of the way.
14	Jacob Petropski,	Polish,	Miner,	48	M.	Marvine,		Pelvis fractured by fall of roof in face of chamber. He failed to bar down a piece of roof and then started to work under it.
17	John Dobner,	German,	Miner,	66	M.	Olyphant,		Ribs fractured by cars on slope. He tried to get out of car after the signal had been given the engineer to start.
18	John Gallagher,	American,	Company man,	41	M.	Johnson,	Lackawanna,	Leg fractured by piece of rock falling off the gob in face of chamber.
26	Thomas Price,	Welsh,	Door-tender,	26	M.	Marvine,		Arm fractured by cars on gangway road. The lever slipped while he was assisting to block a derailed car.
27	John Marcus,	Lithuanian,	Laborer,	24	M.	Legitts Creek,		Leg fractured by fall of slip roof in face of chamber.
Nov. 3	Marshella Lutena,	Italian,	Miner,	28	M.	Ontario,		Eyes injured by blast in face of chamber. He was placing Atlas powder in the hole when it exploded.
8	Anthony Shead,	Italian,	Laborer,	22	S.	Eddy Creek,		Leg fractured by fall of slip roof in face of chamber.
16	John Somerenski,	Russian,	Laborer,	37	M.	Lackawanna,		Skull fractured by blast in face of chamber. While the miner was tamping a hole it exploded.
20	Daniel Tapp,	American,	Runner,	17	S.	Marvine,		Arm fractured by a mule's trace on gangway road. The mule started up suddenly, causing the trace to swing around.

Nov.	21	Patrick H. Maloney,	American,	Laborer,	47	M.	Eddy Creek,		Leg fractured by kick from mule. Outside, near repair shop.
		Marks Centralia,	Italian,	Laborer,	20	S.	Mt. Jessup,		Leg fractured by fall of slip roof in face of chamber.
	27	Baldo Manarko,	Italian,	Miner,	29	M.	Mt. Jessup,		Burned by explosion of fire-damp in face of chamber. A fall in an abandoned chamber forced a body of gas to where he was working.
	28	John Krovicks,	Austrian,	Miner,	45	M.	Lackawanna,		Leg fractured by fall of roof at face of chamber. He was replacing a prop that had been discharged by a blast.
	29	Harry Stack,	Italian,	Driver,	18	S.	Ontario,	Lackawanna,	Arm fractured by kick from mule on gangway road.
	30	Michael Polchick,	Russian,	Company man,	30	M.	Eddy Creek,		Wrist fractured by cars on plane. He was riding on a car that became derailed.
Dec.	5	Michael Bogenski,	Polish,	Miner,	28	M.	Johnson,		Eye destroyed by blast in face of chamber while tamping a hole.
	8	Joseph Risk,	English,	Company man,	51	M.	Olyphant,		Leg fractured by being struck by a derailed car at foot of shaft while sitting on a head-block.
	9	John Uchack,	American,	Slatepicker,	16	S.	Dolph,		Leg fractured by falling from breaker window. He climbed up on a beam to close the window and fell. Outside.
	15	Theodore Witovitch,	Russian,	Laborer,	35	M.	Olyphant,		Leg fractured by cars in chamber. He was running a car out, which became derailed at head-block.
	16	George Sullivan,	American,	Runner,	19	S.	Marvine,		Leg fractured by cars on chamber road. He was running a car, which became derailed at head-block.
	21	John Shinish,	Polish,	Miner,	53	M.	Storrs,		Ribs fractured by blast in face of chamber. The charge exploded while he was running away.

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY, (INSIDE)
HUDSON COAL COMPANY, (OUTSIDE)

Olyphant.—Safety conditions, ventilation and drainage good.

Eddy Creek.—Safety conditions, ventilation and drainage good.

Legitts Creek.—Safety conditions and ventilation good; drainage fair.

Marvine.—Safety conditions and ventilation good; drainage fair.

SCRANTON COAL COMPANY

Ontario.—Safety conditions, ventilation and drainage good.

Johnson.—Safety conditions and ventilation good; drainage fair.

Richmond No. 3.—Safety conditions and ventilation good; drainage fair.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Storrs.—Safety conditions, ventilation and drainage good.

STERRICK CREEK COAL COMPANY

Sterrick Creek.—Safety conditions and ventilation good; drainage fair.

LACKAWANNA COAL COMPANY, LIMITED

Lackawanna.—Safety conditions, ventilation and drainage good.

MOUNT JESSUP COAL COMPANY, LIMITED

Mount Jessup.—Safety conditions and ventilation good; drainage fair.

MOOSIC MOUNTAIN COAL COMPANY

Marshwood.—Safety conditions and ventilation good; drainage fair.

DOLPH COAL COMPANY, LIMITED

Dolph.—Safety conditions and ventilation good; drainage fair.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Guernsey Hall, Scranton, April 3 and 4. The Board of Examiners was composed of the following persons: L. M. Evans, Mine Inspector, Scranton; Frank G. Wolfe, Engineer, Scranton; W. F. Malloy, Miner, Carbondale; David Evans, Miner, Olyphant.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John B. Shepherd, Forest City; Frank B. Newlands, Throop; Richard Evans, Olyphant; Edward F. Munley, Archbald; Thomas Thomas, Jr., James F. Watkins, Edward M. Jones, Lewis A. Jones, Andrew Meixner, Scranton.

Assistant Mine Foremen

Thomas Stratford, Forest City; Patrick A. Dean, Winton; Frank Clark, Throop; Edwin Daniels, Olyphant; Frank Panchison, Vandling; Peter J. McClymer, Dunmore; Patrick J. O'Rourke, Archbald; Daniel Mathias, William H. Parfitt, David R. Watkins, Thomas Goodfellow, Edwin Smith, Hugh Davis, Frank Harmer, Scranton.

THIRD DISTRICT

LACKAWANNA COUNTY

Scranton, Pa., February 5, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my report as Inspector of Mines for the Third Anthracite District for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

D. T. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	19
Number of mines,	24
Number of mines in operation,	24
Number of tons of coal shipped to market,	4,131,288
Number of tons used at mines for steam and heat,	345,604
Number of tons sold to local trade and used by employes,	151,766
Number of tons produced,	4,628,658
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	8,647
Number of persons employed outside,	2,184
Number of fatal accidents inside of mines,	104
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,	43
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside,	44,506
Number of persons employed per fatal accident inside,	83
Number of persons employed per fatal accident outside,	364
Number of persons employed per non-fatal accident inside,	201
Number of persons employed per non-fatal accident outside,	243
Number of wives made widows,	74
Number of children made orphans,	182
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	12
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	36
Number of electric motors used outside,	.....
Number of fans in use,	24
Number of furnaces in use,	.....
Number of gaseous mines in operation,	14
Number of non-gaseous mines in operation,	10
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware, Lackawanna and Western Railroad Company...	1,056,976
Pennsylvania Coal Company, ...	998,755
Scranton Coal Company, ...	787,985
Hudson Coal Company, ...	704,772
Price-Pancoast Coal Company, ...	679,571
Green Ridge Coal Company, ...	118,635
Nay Aug Coal Company, ...	81,392
North End Coal Company, ...	39,696
Economy Light, Heat and Power Company, ...	39,250
Carney and Brown Coal Company, ...	37,632
A. D. and F. M. Spencer Coal Company, ...	32,007
Clearview Coal Company, ...	31,254
Bulls Head Coal Company, ...	20,733
Total, ...	4,628,658

Production by Counties

Lackawanna, ...	4,628,658

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Delaware, Lackawanna and Western Railroad Co.,	4	1	5	6	5	11	264,244	176,163	2,302	479	2,781	575	479	383	96
Pennsylvania Coal Co.,	6	3	9	6	4	10	166,459	166,459	1,871	509	2,380	312	170	312	127
Scranton Coal Co.,	7	2	9	8	.....	8	112,569	98,498	1,395	353	1,748	199	176	174	.....
Hudson Coal Co.,	6	.....	6	14	.....	14	117,462	50,341	1,080	212	1,292	180	.....	77	.....
Price-Pancoast Coal Co.,	80	.....	80	7	.....	7	8,495	97,081	1,186	283	1,469	15	.....	169	.....
Green Ridge Coal Co.,	.....	.....	.....	1	.....	1	.....	118,635	213	85	298	.....	.....	213	.....
Nay Aug Coal Co.,	1	.....	1	1	.....	1	81,392	81,392	219	57	276	219	.....	219	.....
Miscellaneous Companies,	.....	.....	.....	.....	.....	.....	.....	.....	381	206	587	.....	.....	.....	.....
Totals and averages for district,	104	6	110	43	9	52	44,506	107,643	8,647	2,184	10,831	83	364	201	243

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,											1		1	.96
Falls of roof,	1	2		2	1	1	3					3	13	12.50
Mine cars,		1		2				2	2				7	6.73
Explosions of gas,					1								1	.96
Suffocation by gas, etc.,				72									72	69.24
Blasts, premature and otherwise,	1	1		1		1	1	1	1				7	6.73
Falling into shafts,							1						1	.96
Machinery,											1		1	.96
Scalded by water,												1	1	.96
Totals,	2	4		77	2	2	5	3	3		2	4	104	100.00
Causes of Accidents Outside														
Cars,		1											1	16.67
Boiler explosions,										1			1	16.67
Falls of coal in stripping,												2	2	33.33
By jumping,				1									1	16.67
Burned by fire,				1									1	16.66
Totals,		1		2						1		2	6	100.00
Grand totals inside and outside,	2	5		79	2	2	5	3	3	1	2	6	110	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1					2			3	6.97
Falls of roof,		2			1	1		1		1	1	2	9	20.93
Mine cars,	5		1	2	2			2		2	2		16	37.20
Explosions of gas,								2					2	4.65
Explosions of powder and dynamite,		1											1	2.33
Blasts, premature and otherwise,	2	1					1	4					8	18.60
Struck by iron rail,										1			1	2.33
Struck by piece of coal,	1												1	2.33
Struck by piece of ice,			1										1	2.33
Foot caught in guard rail,											1		1	2.33
Totals,	8	4	2	2	4	1	1	9		6	4	2	43	100.00
Causes of Accidents Outside														
Cars,			1										1	11.11
Machinery,		1											1	11.11
Boiler explosions,										3			3	33.34
Struck by frozen culm,		1											1	11.11
Burned by fire,				1									1	11.11
By jumping,				2									2	22.22
Totals,		2	1	3						3			9	100.00
outside,	8	6	3	5	4	1	1	9		9	4	2	52	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,				1									1
Fire bosses and assistants,				1									1
Miners,	2	3		29	2	1	2	1			1	1	42
Miners' laborers,				25		1	3		1		1	2	33
Drivers and runners,		1		7				1	1				10
Doorboys and helpers,				5									5
Company men,				9									9
Engineers,												1	1
Roadmen,								1	1				2
Totals,	2	4		77	2	2	5	3	3		2	4	104
Outside													
Headmen,				2									2
Ashmen,										1			1
Laborers,		1										2	3
Totals,		1		2						1		2	6
Grand totals inside and outside,	2	5		79	2	2	5	3	3	1	2	6	110

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	4	2		1	2		1	5		2		2	19
Miners' laborers,	2	2	1			1		5		2	1		11
Drivers and runners,	1				2			2		2	1		8
Doorboys and helpers,	1												1
Timbermen,											1		1
Roadmen,			1	1									2
Blacksmiths,											1		1
Totals,	8	4	2	2	4	1	1	9		6	4	2	43
Outside													
Blacksmiths and carpenters,				1									1
Engineers and firemen,										1			1
Slatepickers (boys),		1		1									2
Masons,										1			1
Helpers,										1			1
Oilers,				1									1
Laborers,		1	1										2
Totals,		2	1	3						3			9
Grand totals inside and outside,	8	6	3	5	4	1	1	9		9	4	2	53

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		2					1	1		1		1	6
English,		1		11									12
Welsh,				1									1
Irish,	1								1				2
German,				1									1
Polish,		2		39	1	1	1	1	2		1	3	51
Hungarian,							1	1					2
Italian,				2			1					1	4
Slavonian,				12							1		13
Lithuanian,	1			7	1							1	10
Russian,				1		1	1						3
Magyar,				5									5
Totals,	2	5		79	2	2	5	3	3	1	2	6	110

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,			1	2	1					2	2		8
	1	1		1								1	4
Welsh,	1							2					3
Scotch,			1										1
Irish,					1			2		2			5
Polish,	3		1	1	1			3		1	1		11
Hungarian,		2					1						3
Italian,		1		1	1			1		2	1	1	8
Slavonian,		1				1							2
Lithuanian,	3	1											4
Austrian,								1					1
Russian,										2			2
Totals,	8	6	3	5	4	1	1	9		9	4	2	52

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—In inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Lackawanna and Western Railroad Co.																
Diamond No. 2 Colliery:																
Diamond No. 2,	Shaft,	Gaseous,	2 Fans,	14	4	4	100	1.2	Open running,	Steam,		4	93,320	70,760	194,980	215
Diamond Tripp,	Shaft,	Gaseous,	Fan,	14	4	4	96	1	Open running,	Steam,		9	179,330	122,930	196,042	232
Diamond,	Drift,	Non-gas.,	Fan,	16	6	6.5	104	1.5	Open running,	Steam,		3	36,580	33,380	41,800	174
Brisbin Colliery:																
Brisbin,	Shaft,	Gaseous,	Fan,	14	4	4	96	1	Open running,	Steam,		10	131,440	118,425	197,520	420
Cayuga Colliery:																
Cayuga,	Shaft,	Gaseous,	Fan,	14	4	4	144	1.8	Open running,	Steam,		10	143,510	118,417	158,292	369
Manville Colliery:																
Manville,	Shaft,	Gaseous,	2 Fans,	12	3.5	4	148	1.3	Open running,	Steam,		10	217,890	186,060	247,840	360
				20	6	5.5	85	1.5	Guibal,							
				20	6	5.5	90	1								
Pennsylvania Coal Co.																
Pennsylvania No. 1 Colliery.																
Pennsylvania No. 1,	Shaft,	Gaseous,	Fan,	17.5	5	4.5	65	1.2				9	199,130	125,940	152,210	425
Pennsylvania No. 2,	Drift,	Non-gas.,	Fan,	18	5	4.5	60	.6	Guibal,	Steam,		6	95,000	85,600	103,800	330
Pennsylvania No. 5 Colliery:																
Pennsylvania No. 5,	Shaft,	Gaseous,	Fan,	20	6.5	5	75	1.2				7	120,150	85,400	132,100	225
Gipsy Grove Colliery:																
Gipsy Grove,	Shaft,	Non-gas.,	Fan,	18	5	4.5	70	.8				*				

*Idle since April 27. Breaker destroyed by fire.

Scranton Coal Co.																
Pine Brook Colliery:																
Pine Brook,		Gaseous,	Fan,	17	6	6	102	2				13	172,400	146,900	193,000	540
Mount Pleasant Colliery:																
Mount Pleasant (Main),	Shaft,	Gaseous,	Fan,	20	5	5	60	.8	Guibal,	Steam,		9	120,140	110,740	135,440	236
Mount Pleasant (Surface),		Non-gas.,	Fan,	14	3	3	114	.9				2	37,070	34,400	39,170	91
West Ridge Colliery:																
West Ridge,		Gaseous,	Fan,	20	5	5	85	1.5				5	84,500	77,000	87,400	181
Price-Pancoast Coal Co.																
Pancoast Colliery:																
Pancoast,	Shaft,	Gaseous,	2 Fans,	35	9	8.5	50	1.8	Guibal,	Steam,		14	157,475	145,975	168,540	452
				20	4	5	90	2	Guibal,	Steam,		8	137,033	125,761	142,705	271
Hudson Coal Co.																
Von Storch Colliery:																
Von Storch,	Slope,	Gaseous,	2 Fans,	22	5.5	7	85	2.2	Guibal,	Steam,		10	196,690	158,050	213,680	437
Dickson Colliery:				12	3	4	90	.8								
Dickson,	Shaft,	Gaseous,	2 Fans,	20	5	7	80	1.6	Guibal,	Steam,		4	112,000	92,500	127,000	178
				20	5	7	85	1.8				7	139,060	130,300	170,400	361
Green Ridge Coal Co.																
Green Ridge Colliery:																
Green Ridge,	Slope,	Gaseous,	Fan,	14	4	4	48	2	Open running,	Steam,		6	104,260	87,975	122,545	160
Nay Aug Coal Co.																
Nay Aug Colliery,																
Nay Aug,	Slope,	Non-gas.,	Natural,									3	42,190	26,200	62,275	227
North End Coal Co.																
North End Colliery:																
North End,	Tunnel,	Non-gas.,	Natural,									4	25,600	23,200	27,400	88
Carney and Brown Coal Co.																
Carney and Brown Colliery:																
Carney and Brown,	Shaft,	Non-gas.,	Natural,									2	27,964	20,668	28,230	55
A. D. and F. M. Spencer Coal Co.																
Spencer Colliery:																
Spencer,	Shaft,	Non-gas.,	Natural,									2	18,200	15,450	22,300	35

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Bulls Head Coal Co.																
Bulls Head Colliery:																
Bulls Head,	Slope,	Non-gas.,	Natural,									2	30,000	9,000	32,000	40
Clearview Coal Co.																
Clearview Colliery:																
Clearview,	Drift,	Non-gas.,	Fan,	7	2.5	2	90	.4	Sturdevant,	Electricity,		1	28,340	16,230	30,210	34

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware, Lackawanna and Western Railroad Co. Diamond, Brisbin, Cayuga, Manville, Cayuga Washery,	Lackawanna,	C. E. Tobey,	Scranton,	Walter Reese,	Scranton,	D. L. and W.
Pennsylvania Coal Co. Pennsylvania No. 1, Pennsylvania No. 5, Gipsy Grove,	Lackawanna,	W. W. Inglis,	Dunmore,	Jesse Palmer,	Dunmore,	Erie
Scranton Coal Co. Pine Brook, Mount Pleasant, West Ridge,	Lackawanna,	W. L. Allen,	Peckville,	Daniel Young, John F. Cummings,	Scranton,	O. and W.
Price-Pancoast Coal Co. Pancoast, Pancoast Washery,	Lackawanna,	John R. Bryden,	Scranton,	Joseph V. Birtley,	Scranton,	D. L. and W. and O. and W.
Hudson Coal Co. Von Storch, Von Storch Washery,	Lackawanna,	C. C. Rose,	Scranton,	Finley Ross,	Scranton,	D. and H.
Green Ridge Coal Co. Green Ridge,	Lackawanna,	W. L. Connell,	Scranton,			Erie
North End Coal Co. North End,	Lackawanna,	W. L. Connell,	Scranton,	Arthur Widowfield,	Scranton,	O. and W.
Nay Aug Coal Co. Nay Aug,	Lackawanna,	William Y. Moffatt,	Scranton,	George Watson,	Scranton,	Erie

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
A. D. and F. M. Spencer Coal Co. Spencer, Spencer Washery,	Lackawanna,	F. M. Spencer,	Scranton,	H. M. Spencer,	Dunmore,	Erie and D. L. and W.
Carney and Brown Coal Co. Carney and Brown,	Lackawanna,	John Carney,	Dunmore,	John Brown,	Dunmore,	D. L. and W.
Bulls Head Coal Co. Bulls Head,	Lackawanna,	David Spruks,	Scranton,	Jonathan Vipond,	Scranton,	O. and W.
Clearview Coal Co. Clearview,	Lackawanna,	Louis Landau,	Scranton,	Hugh Dawson,	Scranton,	
Economy Light, Heat and Power Co. Economy Washery,	Lackawanna,	R. Van O'Linda,	Scranton,			

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Delaware, Lackawanna and Western Railroad Co.													
Diamond,	Lackawanna,	398,548	14,817	----------	413,365	216	1,005	1	5	536,450	30,965	----------	153
Brisbin,		266,608	20,356	4,660	291,624	268	767	3	3	359,275	26,351	----------	55
Cayuga,		145,435	21,020	6,669	173,124	265	503	1	2	161,975	45,834	----------	44
Manville,*		74,462	16,506	761	91,729	105	481	----	1	184,825	9,035	----------	55
		885,053	72,699	12,090	969,842	--------	2,756	5	11	1,242,525	112,155	----------	207
Cayuga Washery,	Lackawanna,	87,134	----------	----------	87,134	298	25	----	----	----------	----------	----------	----------
Totals,		972,187	72,699	12,090	1,056,976	--------	2,781	5	11	1,242,525	112,155	----------	207
Pennsylvania Coal Co.													
Pennsylvania No. 1,	Lackawanna,	584,524	28,435	2,130	615,089	298	1,273	1	3	609,675	17,499	----------	95
Pennsylvania No. 5,		308,355	9,308	13,794	331,457	294	714	4	3	378,175	9,704	----------	66
Gipsy Grove,		52,209	----------	----------	52,209	93	393	4	4	70,875	1,431	----------	41
Totals,		945,088	37,743	15,924	998,755	--------	2,380	9	10	1,118,725	28,634	----------	202

*Worked every alternate month by Hudson Coal Company.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Scranton Coal Co.													
Pine Brook,	Lackawanna,	417,160	46,000	4,481	467,641	225	978	6	2	691,000	21,900	.....	98
Mount Pleasant,		191,636	24,030	2,563	218,229	175	451	2	5	383,875	15,550	.....	45
West Ridge,		89,406	9,850	2,859	102,115	233	319	1	1	194,875	28,400	.....	33
Totals,		698,202	79,880	9,903	787,985	.....	1,748	9	8	1,269,750	65,850	.....	176
Hudson Coal Co.													
Von Storch,	Lackawanna,	467,398	14,794	8,517	490,709	244	1,245	6	14	918,500	59,056	.....	114
Manville,		73,640	20,689	949	95,278	113	.....	.....	.....	182,100	.....	.....	.....
		541,038	35,483	9,466	585,987	.....	1,245	6	14	1,100,600	59,056	.....	114
Von Storch Washery,	Lackawanna,	78,671	40,114	.....	118,785	53	47	.....	.....	.....	.....	.....	.....
Totals,		619,709	75,597	9,466	704,772	.....	1,292	6	14	1,100,600	59,056	.....	114
Price-Pancoast Coal Co.													
Pancoast,	Lackawanna,	536,606	54,750	4,532	595,888	248	1,427	80	7	906,275	10,100	.....	105
Pancoast Washery,		83,683	.....	.....	83,683	153	42	.....	.....	.....	.....	.....	.....
Totals,		620,289	54,750	4,532	679,571	.....	1,469	80	7	906,275	10,100	.....	105
Green Ridge Coal Co.													
Green Ridge,	Lackawanna,	65,078	8,455	45,102	118,635	221	298	.....	1	107,425	6,400	.....	32

Nay Aug Coal Co.													
Nay Aug,	Lackawanna,	78,142	3,250	----------	81,392	198	276	1	1	130,200	1,400	----------	28
North End Coal Co.													
North End,	Lackawanna,	28,045	7,000	4,651	39,696	184	168	----	----	33,750	3,500	----------	7
Economy Light, Heat and Power Co.													
Economy Washery,	Lackawanna,	37,550	1,700	----------	39,250	225	15	----	----	----------	----------	----------	------
Carney and Brown Coal Co.													
Carney and Brown,	Lackawanna,	26,305	80	11,247	37,632	192	96	----	----	45,025	2,525	----------	15
A. D. and F. M. Spencer Coal Co.													
Spencer,	Lackawanna,	23,359	4,000	4,648	32,007	112	126	----	----	13,750	2,000	----------	17
Clearview Coal Co.													
Clearview,	Lackawanna,	8,848	450	21,956	31,254	252	78	----	----	22,825	1,000	----------	4
Bulls Head Coal Co.													
Bulls Head,	Lackawanna,	8,486	----------	12,247	20,733	305	104	----	----	20,125	750	----------	14
Grand totals,	----------	4,131,288	345,604	151,766	4,628,658	--------	10,831	110	52	6,010,975	293,370	----------	921

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	4	1,332	15	4,750	6,082	5	------	14	69	5,272	21	14,149	9,814	2	------
Pennsylvania Coal Co.,		------	------	24	3,300	3,300	6	------	7	50	3,450	2	1,800	1,200	2	1
Scranton Coal Co.,		12	180	17	2,470	2,650	1	------	8	35	3,275	12	8,012	5,850	3	1
Hudson Coal Co.,		------	------	13	3,000	3,000	1	------	------	43	3,107	4	3,500	450	1	1
Price-Pancoast Coal Co.,		------	------	11	1,835	1,835	------	------	------	24	1,693	3	2,000	1,900	2	2
Green Ridge Coal Co.,		------	------	9	1,125	1,125	------	------	------	8	594	------	------	------	------	------
Nay Aug Coal Co.,		------	------	3	240	240	------	------	------	1	50	------	------	------	------	------
North End Coal Co.,		------	------	5	500	500	------	------	3	4	225	------	------	------	1	------
Economy Light, Heat and Power Co.,		------	------	2	600	600	------	------	------	3	40	------	------	------	------	------
Carney and Brown Coal Co.,		------	------	3	360	360	------	------	------	4	112	------	------	------	------	------
A. D. and F. M. Spencer Coal Co.,		5	145	2	300	445	------	------	------	16	345	------	------	------	1	------
Clearview Coal Co.,		------	------	------	------	------	------	------	4	------	------	1	75	50	------	------
Bulls Head Coal Co.,		3	156	------	------	156	------	------	------	4	139	------	------	------	2	------
Totals,		24	1,813	104	18,480	20,293	13	------	36	261	18,302	43	29,536	19,264	14	5

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slatepickers (boys)	Slatepickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	6	2	18	779	822	271	41	12	242	109	2,302	------	5	28	54	94	30	13	255	479	2,781
Pennsylvania Coal Co.,		4	12	1	632	674	204	28	5	226	85	1,871	1	3	47	20	94	55	5	284	509	2,380
Scranton Coal Co.,		4	3	10	476	399	240	57	15	------	191	1,395	------	3	21	29	90	76	4	130	353	1,748
Hudson Coal Co.,		2	3	11	366	321	166	32	2	158	19	1,080	------	3	11	38	16	28	6	110	217	1,292
Price-Pancoast Coal Co.		2	3	10	345	366	141	71	7	93	148	1,186	1	2	16	23	58	46	4	133	283	1,469
Green Ridge Coal Co.,		2	----	1	68	76	53	3	------	6	4	213	1	1	7	7	17	----	4	48	85	298
Nay Aug Coal Co.,		1	1	----	81	99	25	1	------	------	11	219	1	1	2	3	24	4	1	21	57	276
North End Coal Co.,		1	----	1	30	29	12	1	------	5	30	109	1	1	4	6	18	9	2	18	59	168
Economy Light, Heat and Power Co.,		----	----	----	----	----	----	----	----	----	----	----	1	1	1	3	----	----	1	8	15	15
Carney and Brown Coal Co.,		1	----	----	19	19	14	------	------	8	4	65	1	1	2	2	11	----	1	13	31	96
A. D. and F. M. Spencer Coal Co.,		1	----	----	24	28	11	------	------	13	------	77	1	1	1	5	5	3	1	32	49	126
Clearview Coal Co.,		1	1	----	17	17	2	------	------	15	------	53	2	1	1	2	8	----	2	9	25	78
Bulls Head Coal Co.,		1	----	----	35	16	9	------	------	16	------	77	1	1	2	3	10	----	2	8	27	104
Totals,		26	25	52	2,872	2,866	1,148	234	41	782	601	8,647	11	24	143	195	445	251	46	1,069	2,184	10,831

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	16	16	12	18	17	22	15	23	17	21	16	21	214
Pennsylvania Coal Co.,		24	23	26	22	17	17	16	18	17	16	16	16	228
Scranton Coal Co.,		17	16	20	17	17	18	17	19	21	16	17	16	211
Hudson Coal Co.,		21	11	20	9	20	11	15	12	20	11	19	10	179
Price-Pancoast Coal Co.,		23	21	24	8	21	23	21	22	22	22	21	20	248
Green Ridge Coal Co.,		18	18	19	17	19	19	17	20	18	19	19	18	221
Nay Aug Coal Co.,		22	20	21	18	14	13	14	16	14	15	15	16	198
North End Coal Co.,		21	19	18	15	17	15	13	15	11	14	12	14	184
Carney and Brown Coal Co.,		18	15	16	16	16	17	17	17	13	15	16	16	192
A. D. and F. M. Spencer Coal Co.,		10	8	8	7	7	7	2	11	13	15	12	12	112
Clearview Coal Co.,		25	24	28	25	23	26	------	------	21	26	27	27	252
Bulls Head Coal Co.,		26	24	26	25	26	25	26	26	25	25	26	25	305

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 25	James Yetconice,	Lithuanian,	Miner,	30	M.	1	1	Von Storch,	Lackawanna,	Fatally injured by fall of roof at face of chamber in Four Foot vein, while examining after a blast.
	Martin Flannery,	Irish,	Miner,	38	M.	1	3	Pine Brook,		Killed by flying coal from a blast near face of chamber while firing two holes at one time.
Feb. 1	James Richardson,	English,	Miner,	61	M.	1	2	Pine Brook,		Killed by fall of roof at face of chamber in the Clark vein while gathering up his tools after firing a blast.
6	Martin Olick,	Polish,	Miner,	31	M.	1	2	Brisbin,		Killed at face of chamber while pulling down some loose roof after firing a blast.
8	Alfred Veale,	American,	Driver,	17	S.			Von Storch,		Killed by being caught between mine car and narrow side of gangway road.
17	Albert Smith,	American,	Laborer,	58	M.	1		Gipsy Grove,		Killed by being run over by a trip of loaded culm cars that was being run from under the breaker. Outside.
22	William Tulizkie,	Polish,	Miner,	31	S.			Pine Brook,		Fatally injured by premature blast at face of chamber in China vein. Died next day.
April 5	Thomas Krimsky,	Slavonian,	Runner,	22	M.	1		Gipsy Grove,		Killed by falling under a trip of loaded mine cars that was being hauled up a slope in the No. 3 Dunmore vein.
7	Walter Knight,	Welsh,	Mine foreman,	40	M.	1	4	Pancoast,	Lackawanna,	Suffocated by smoke from mine fire. (See account in preliminary part of report.)
	Isaac Dawes,	English,	Fire boss,	35	M.	1	3			
	John Batbolies,	Slavonian,	Company man	38	M.	1	7			
	Louis Korman,	Slavonian,	Miner,	42	M.	1	3			
	Lawrence Reitz,	German,	Doorman,	70	M.	1				
	Kebmen Voros,	Magyar,	Miner,	32	M.	1	4			
	Mike Gal,	Slavonian,	Driver,	16	S.					
	Stefan Ostrosky,	Polish,	Driver,	16	S.					
	William H. Lucas,	English,	Runner,	18	S.					
	Steaf Nemeth,	Magyar,	Laborer,	24	S.					

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
April 7	James L. Wallace,	English,	Company man	59	M.	1	1			
	Julius Varga,	Magyar,	Laborer,	42	W.		1			
	John Molner,	Magyar,	Miner,	46	M.	1	3			
	Charles Lutwnco,	Polish,	Laborer,	20	S.					
	Albert Hera,	Polish,	Miner,	36	M.	1	2			
	Staney Kurkoviak,	Polish,	Laborer,	35	M.	1	3			
	Adolf Czispak,	Polish,	Laborer,	26	M.	1				
	George Balog,	Slavonian,	Miner,	29	M.	1	3			
	Adam Pasko,	Slavonian,	Miner,	28	M.	1	2			
	W. John May,	English,	Company man	49	M.	1	3			
	Kastantz Sawicky,	Polish,	Miner,	36	M.	1	5			
	Joseph Szuak,	Polish,	Laborer,	28	M.	1	1			
	John Pioplis,	Polish,	Laborer,	24	S.					
	Alex Wroblewsky,	Polish,	Miner,	30	S.					
	Mike Balitsky,	Lithuanian,	Miner,	33	M.	1	1	Pancoast,	Lackawanna,	Suffocated by smoke from mine fire.
	Jacob Sznak,	Slavonian,	Company man	40	M.	1	1			
	Staney Majewski,	Polish,	Miner,	26	S.					
	Adam Zesutarsky,	Polish,	Laborer,	37	M.	1	4			
	Joseph Adronowiez,	Polish,	Laborer,	30	M.	1	2			
	Andrew Grutcowsky,	Polish,	Miner,	42	M.	1	7			
	Peter Kalkosky,	Polish,	Doorman,	50	M.	1	5			
	Anthony Lucosky,	Lithuanian,	Miner,	35	M.	1	2			
	John Bilek,	Slavonian,	Driver	20	S.					
	John Stoyak,	Slavonian,	Doorman,	40	M.	1	5			
	John Dzurisin,	Slavonian,	Driver,	19	S.					
	Kotantz Cebulka,	Polish,	Laborer,	23	M.	1	1			
	Vousen Yanuchefsky,	Lithuanian,	Laborer,	36	M.	1	1			
	Joseph Kavalavage,	Polish,	Doorman,	45	S.					
	Joseph Younasz,	Slavonian,	Doorman,	40	M.	1	5			
	George Poklemba,	Slavonian,	Company man	58	M.	1	3			
	Joseph Klemansky,	Lithuanian,	Laborer,	19	S.					

April 7	Mike Diezkus,	Lithuanian,	Miner,	22	M.	1	1				
	Andrew Dalzek,	Polish,	Miner,	38	M.	1	5				
	Emil Waszczenink,	Polish,	Miner,	32	M.	1	5				
	John Waszczenink,	Polish,	Miner,	25	S.						
	Vikto Waszczenink,	Polish,	Laborer,	19	S.						
	Lowen Posivia,	Polish,	Laborer,	19	S.						
	John Czevnagusky,	Polish,	Runner,	19	S.						
	William Gregson,	English,	Company man	50	M.	1	4				
	Edward Hart,	English,	Company man	30	M.	1	3				
	Hilari Zazicky,	Polish,	Laborer,	47	M.	1	1				
	Martin Strysniewsky,	Polish,	Miner,	32	S.						
	Andrew Gibarsky,	Magyar,	Laborer,	32	M.	1	3				
	Anthony Bicko,	Polish,	Miner,	36	M.	1	2				
	John Milunis,	Lithuanian,	Miner,	43	M.	1	3				
	Staney Osiecki,	Polish,	Miner,	40	M.	1	3				
	John Parry,	English,	Miner,	46	M.	1					
	John Mitchinson,	English,	Company man	32	S.						
	John Bray,	English,	Company man	30	M.	1	2	Pancoast,	Lackawanna,	Suffocated by smoke from mine fire.	
	Charles Podurgil,	Polish,	Miner,	50	M.	1					
	Thomas McWaters,	English,	Miner,	41	M.	1	4				
	Frank Szalzis,	Polish,	Laborer,	22	S.						
	Lud Dworakosky,	Polish,	Miner,	23	M.	1					
	Henry Rothwell,	English,	Miner,	35	M.	1	1				
	Staney Oleksik,	Polish,	Miner,	24	S.						
	Joseph Wisniewski,	Polish,	Laborer,	48	M.	1	4				
	Charles Trudosky,	Polish,	Laborer,	29	S.						
	Bolas Grutsky,	Polish,	Laborer,	23	S.						
	Andrew Smegorsky,	Polish,	Laborer,	25	M.	1	2				
	Unidentified,	Polish,	Laborer,								
	Unidentified,	Polish,	Laborer,								
	Unidentified,	Polish,	Laborer,								
12	Joseph Smith,	Polish,	Miner,	35	M.	1	3	Brisbin,		Killed by fall of roof at face of chamber while drilling a hole.	
18	Adam Brunits,	Russian,	Miner,	39	M.	1	3	Von Storch,		Fatally injured by being caught between a trip of empty mine cars and rib on tail rope line in Four Foot vein.	
27	Michael Wdzuskus,	Lithuanian,	Miner,	35	M.	1	1	Von Storch,		Killed by blast at face of chamber in No. 2 Dunmore vein while tamping a rock hole.	
	Tony Battista,	Italian,	Headman,	32	M.	1	4	Gipsy Grove,	Lackawanna,	Burned to death in breaker fire. Outside.	
	Peter Clapp,	Italian,	Headman,	50	M.	1	2			Fatally injured by jumping 60 feet from burning breaker. Died in Hospital April 30. Outside.	
29	Caustic Povinsky,	Polish,	Laborer,	26	S.			Nay Aug,		Killed by fall of roof while sitting down at face of chamber in No. 1 Dunmore vein.	

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
May 5	Joseph Lewain,	Lithuanian,	Miner,	39	M.	1	2	Von Storch,		Killed by an explosion of gas. His lighted lamp came in contact with some gas oozing through a separation door between Legitts Creek and Dickson workings.
24	Frank Sinoski,	Polish,	Miner,	35	M.	1	2	Brisbin,		Killed by fall of roof after firing a blast in his chamber he went into the next chamber to have a smoke and he was sitting down near the face when a portion of the roof fell upon him.
June 10	Victor Pernasky,	Polish,	Miner,	27	M.	1	2	Pine Brook,		Killed by flying coal from a blast at face of chamber in No. 1 Dunmore vein.
29	Mike Chirchrop,	Russian,	Laborer,	22	S.			West Ridge,		Killed by fall of roof at face of chamber while loading car of coal.
July 6	Catal Raymon,	Italian,	Laborer,	21	M.	1	1	Penna. No. 5,	Lackawanna,	Killed by falling down shaft from surface landing to the bottom.
13	Victor Nitupski,	Polish,	Miner,	38	M.	1		Pancoast,		Killed by flying coal from a blast near face of chamber in China vein.
18	Charles Ashman,	American,	Miner,	29	M.	1	3	Pancoast,		Killed by fall of roof. He was in the act of putting the drill over a dangerous piece of roof at face of heading to pull it down, when he slipped and the roof fell upon him.
19	Mike Lock,	Russian,	Laborer,	21	S.			Penna. No. 5,		Killed by fall of roof. He went back to the face of chamber before the miner had time to examine the roof after firing a blast, and a piece of roof fell upon him.
24	Mike Hagadish,	Hungarian,	Laborer,	41	M.	1	4	Pancoast,		Killed by fall of roof at face of chamber while cleaning a place to restand a prop that had been discharged by a blast.

Aug.	16	John Gibbons,	American,	Tracklayer,	30	M.	1	3	Pancoast,		Killed by car. While they were helping to replace a derailed car on the track at foot of slope, the engineer started the engine, pulling the car over them.
		Joe Kojinski,	Polish,	Driver,	18	S.					
	16	John Farkas,	Hungarian,	Miner,	28	M.	1		Pancoast,		Killed by flying coal from a blast at face of chamber while going to a place of safety.
Sept.	1	Joe Mitchel,	Polish,	Driver,	18	S.			Cayuga,		Killed by being crushed between loaded rock car and an empty trip of mine cars on gangway road in Five Foot vein.
	15	Thomas Healey,	Irish,	Tracklayer,	56	M.	1	3	Von Storch,		Killed by being run over by an empty trip of mine cars on tail rope line. He was standing on the branch and walked directly in front of the trip.
	28	Stanley Muermanki,	Polish,	Laborer,	35	S.			Mount Pleasant,		Killed by flying coal from a blast. He was 240 feet away from face of chamber when struck.
Oct.	5	William Reap,	American,	Ashman,	21	S.			Diamond Boiler Plant.		Fatally injured by being scalded by steam and hot water due to the bursting of a mud drum. Died October 10. Outside.
Nov.	16	Edward Rafalko,	Polish,	Laborer,	40	M.	1	3	Penna. No. 1,	Lackawanna,	Killed by being caught between cage and roof at foot of shaft. He attempted to get on cage after the signal had been given the engineer to hoist.
	28	Andrew Doulock,	Slavonian,	Miner,	35	M.	1	1	Penna. No. 5,		Killed by fall of coal in No. 2 Dunmore vein while robbing pillars.
Dec.	1	Valentine Grant,	Polish,	Miner,	46	M.	1	1	Mount Pleasant,		Killed by fall of roof at face of chamber in Three Foot vein while drilling.
	16	Paul Blakes,	Lithuanian,	Laborer,	28	S.			Penna. No. 5,		Killed by fall of roof at face of chamber while shoveling coal back from face.
		Joe Dunca,	Italian,	Laborer,	44	M.	1	5	Pancoast,		Killed by fall of roof at face of chamber in Diamond vein.
	18	Joseph Hamilton,	American,	Engineer,	22	S.			Pancoast,		Fatally scalded by hot water when a gate valve on engine burst. Died December 29.
	28	Mike Scriber,	Polish,	Laborer,	38	M.	1	4	Pine Brook,		Killed by fall of coal while taking some coal from the surface strippings. Outside.
		Nick Sizuki,	Polish,	Laborer,	30	M.	1	2			

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Anthony Lacksunis,	Lithuanian,	Miner,	45	M.	Manville,		Laceration of arm and contusion of head and body by flying coal from blast near face of chamber.
4	Joseph Coslouskie,	Lithuanian,	Laborer,	27	S.	Von Storch,		Leg fractured by being caught against rib when car became derailed in chamber by striking head block.
7	Joseph Yekmouth,	Lithuanian,	Runner,	28	S.	Von Storch,		Back squeezed by trying to pass a car on narrow side in a chamber.
13	Joseph Cominski,	Polish,	Miner,	46	M.	Pine Brook,		Leg fractured by flying coal from blast near face of chamber.
19	John Hollow,	English,	Miner,	62	M.	Gipsy Grove,		Skull fractured by being caught between car and door on gangway.
25	John Krosnai,	Polish,	Doorman,	55	M.	Pancoast,		Knee cap fractured by being caught by car that jumped the track on gangway road.
26	John Shibla,	Polish,	Laborer,	24	S.	Diamond,	Lackawanna,	Leg fractured by a piece of coal falling on it.
27	David Williams,	Welsh,	Miner,	48	M.	Von Storch,		Collar bone fractured by being caught between car and rib near face of chamber.
Feb. 6	Vincent Toth,	Hungarian,	Laborer,	20	S.	Von Storch,		Pelvis fractured by fall of coal at face of chamber.
	Ignitz Harney,	Hungarian,	Laborer,	30	M.	Von Storch,		Ankle fractured by fall of roof at face of chamber.
7	John Danap,	Lithuanian,	Miner,	33	M.	Von Storch,		Face, neck and hands burned. He ignited a cartridge of powder while withdrawing it from hole.
17	John Tarr,	English,	Miner,	42	M.	Green Ridge,		Injured by flying coal from blast near face of chamber.
	George Bodick,	Slavonian,	Slatepicker,	15	S.	Brisbin Breaker,		Skull fractured by being caught by machinery in breaker. Outside.

Feb.	28	Tony Dermond,	Italian,	Laborer,	37	M.	Cayuga,			Leg and ankle fractured by being struck by a piece of frozen culm that rolled down the dump. Outside.
Mar.	7	William Scott,	Scotch,	Laborer,	32	M.	Von Storch,			Back broken by being struck by two empty mine cars while standing on gangway.
	14	William Gillitsky,	Polish,	Laborer,	21	S.	Penna. No. 1,			Leg fractured by falling under trip of empty mine cars while riding to work in the morning. Outside.
	26	James Morgan,	American,	Tracklayer,	30	M.	Von Storch			Head injured by falling ice while working on top of cage in shaft.
April	3	Patrick Gilgallon,	American,	Brakeman,	25	M.	Cayuga,			Leg fractured by being caught between two mine cars on gangway road.
	6	Steve Borrish,	Polish,	Miner,	38	M.	Brisbin,			Leg fractured by being caught between two empty mine cars on gangway road.
	27	Tony Mecca,	Italian,	Slatepicker,	17	S.	Gipsy Grove,	Lackawanna,		Arm broken by jumping 60 feet from burning breaker. Outside.
		John Dykes,	English,	Carpenter,	25	S.				Face and head burned in breaker fire. Outside.
		Harry Stevens,	American,	Oiler,	17	S.				Back injured by jumping from burning breaker. Outside.
May	1	Joseph Myers,	American,	Driver,	20	S.	Mount Pleasant,			Arm fractured while blocking a car.
	4	Michael Morris,	Irish,	Runner,	24	M.	Pine Brook,			Hip fractured by trying to hold back a car going down grade.
	5	Frank Summa,	Italian,	Miner,	29	M.	Penna. No. 5,			Leg fractured by fall of coal at face of chamber.
	24	Frank Gregos,	Polish,	Miner,	36	S.	Brisbin,			Back fractured by fall of roof at face of gangway while pitching back coal.
June	12	John Fabian,	Slavonian,	Laborer,	26	M.	Penna. No. 1,			Injured by fall of roof at face of chamber.
July	1	John Veigh,	Hungarian,	Miner,	50	M.	Pancoast,			Compound fracture of leg by flying coal from blast near face of chamber.
Aug.	3	Fred Schank,	Italian,	Runner,	22	S.	Pancoast,			Head, face and shoulders burned by igniting a body of gas in an old chamber in China vein.
		James Mickolovitch,	Austrian,	Driver,	19	S.				
	4	Felix Uhlan,	Polish,	Miner,	25	S.	Mount Pleasant,			Injured internally. While tamping a hole at face of chamber it exploded.
		Benj. Weawotsky,	Polish,	Laborer,	27	M.				Face and body burned. While tamping a hole at face of chamber it exploded.
	7	John Dempsey,	Irish,	Laborer,	45	M.	Penna. No. 5,			Foot amputated by being run over by empty mine car on gangway road.
	12	Roland Owens,	Welsh,	Miner,	54	M.	Von Storch,			Head, face and body cut by flying coal from blast at face of chamber.
	15	John Scottque,	Polish,	Miner,	37	M.	Von Storch,			Shoulder fractured and hip dislocated by being squeezed between car and narrow side on gangway road.
	22	John Garrity,	Irish,	Miner,	49	M.	Von Storch,			Four ribs fractured and face cut by fall of roof at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 29	James Lewis,	Welsh,	Miner,	68	M.	West Ridge,	Lackawanna,	Ankle broken by being struck by flying coal from blast near face of chamber.
Oct. 5	Edward Wallers,	American,	Runner,	23	M.	Von Storch,		Arm fractured by being struck by rear end of car when it struck a head block in chamber.
	James O'Hara,	Irish,	Mason,	44	M.	Diamond Boiler Plant.		Face and hands scalded by escaping steam and hot water. Outside.
	Edward Cuff,	Irish,	Fireman,	26	S.			
	Levi Williams,	American,	Helper,	30	S.			
	John Maholshock,	Russian,	Miner,	35	M.	Penna. No. 5,		Skull fractured by fall of top coal at face of chamber.
11	Sam Spance,	Italian,	Laborer,	34	M.	Nay Aug,		Arm fractured by being caught between car and narrow side of gangway.
27	Joseph Carman,	Italian,	Laborer,	29	M.	Mount Pleasant,		Ankle broken by fall of roof at face of chamber while loading car.
28	Charley Maulchie,	Russian,	Miner,	36	M.	Pancoast,		Leg and arm fractured and hip dislocated by fall of top coal at face of chamber.
	John Rigo,	Polish,	Driver,	23	S.	Mount Pleasant,		Leg fractured by an iron rail that he was hauling out of an old chamber.
Nov. 1	Maurie Larcolinie,	Italian,	Blacksmith,	51	M.	Penna. No. 1,		Leg fractured by being caught between two mine cars on gangway road.
2	John Kennehan,	American,	Runner,	35	S.	Von Storch,		Ankle fractured by being caught between guide rail and road rail in chamber.
3	Adam Siminsky,	Polish,	Laborer,	37	M.	Diamond,		Leg fractured by fall of roof at face of chamber.
27	Hugh Davis,	American,	Timberman,	48	M.	Pancoast,		Jaw and three ribs fractured by being squeezed between car and rib while replacing car on track.
Dec. 16	Mike Ouchpin,	Italian,	Miner,	61	M.	Pancoast,		Ankle fractured by fall of roof at face of chamber.
30	Thomas Soulsby,	English,	Miner,	67	M.	Von Storch,		Leg and arm fractured by fall of roof on gangway road while blasting down roof.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Diamond:

Diamond No. 2 shaft.—Ventilation, roads, drainage and general condition as to safety, good.

Diamond drift.—Ventilation, roads and general condition as to safety, good. Drainage fair.

Diamond Tripp shaft.—Ventilation fair. Roads, drainage and condition as to safety, good.

Brisbin.—Ventilation, roads, drainage and general condition as to safety, good.

Cayuga.—Ventilation, roads, drainage and condition as to safety, good.

Manville.—Ventilation, roads, drainage and general condition as to safety, good.

PENNSYLVANIA COAL COMPANY

Pennsylvania:

Pennsylvania No. 1.—Ventilation, roads, drainage and condition as to safety, good.

Pennsylvania No. 2 drift.—Ventilation, roads, drainage and condition as to safety, good.

Pennsylvania No. 5.—Ventilation, roads, drainage and condition as to safety, good.

Gipsy Grove.—Ventilation, roads, drainage and condition as to safety, good.

SCRANTON COAL COMPANY

Pine Brook.—Ventilation, roads, drainage and condition as to safety, good.

Mount Pleasant:

Mount Pleasant Main shaft.—Ventilation, roads, drainage and condition as to safety, good.

Mount Pleasant Little shaft.—Ventilation and roads good. Drainage fair. Condition as to safety, good.

West Ridge.—Ventilation, roads, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Von Storch.—Ventilation, roads and drainage fair. Condition as to safety, good.

Dickson.—Ventilation, roads, drainage and condition as to safety, good.

PRICE-PANCOAST COAL COMPANY

Pancoast.—Ventilation, roads and drainage good. General condition as to safety, good.

GREEN RIDGE COAL COMPANY

Green Ridge.—Ventilation, roads and drainage fair. Condition as to safety, good.

NORTH END COAL COMPANY

North End.—Ventilation, roads and drainage fair. Condition as to safety, good.

NAY AUG COAL COMPANY

Nay Aug.—Ventilation, roads and drainage fair. Condition as to safety, good.

A. D. AND F. M. SPENCER COAL COMPANY

Spencer.—Ventilation good. Roads and drainage fair. Condition as to safety, good.

CARNEY AND BROWN COAL COMPANY

Carney and Brown.—Ventilation, roads and drainage fair. Condition as to safety, good.

BULLS HEAD COAL COMPANY

Bulls Head.—Ventilation, roads and drainage fair. Condition as to safety, good.

CLEARVIEW COAL COMPANY

Clearview.—Ventilation, roads, drainage and condition as to safety, good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Diamond Colliery.—Concrete and fireproof barns erected in both the Rock and No. 2 Dunmore veins at Diamond Tripp Shaft. Erected a new annex to the breaker to prepare the finer sizes of coal.

Brisbin Colliery.—Erected concrete fireproof barns in the Four Foot, Five Foot and Clark veins. Installed a new Scranton Duplex steam mine pump, capacity 1,500 gallons per minute.

Cayuga Colliery.—A rock tunnel 7x12x271 feet long on a pitch of 22 degrees was driven through fault from Clark vein to Clark vein. A rock slope 7x10x300 feet on a pitch of 25 degrees was driven from Dunmore No. 1 to Dunmore No. 3 vein for a second opening. A rock slope 7x12x429 feet long on a pitch of 15 degrees was driven from Clark vein to Dunmore vein. Erected concrete and fireproof barns in the Big, Clark and Four Foot veins. Erected a new brick wash-house with shower baths and lockers. Installed one new Duplex Scranton steam pump, capacity 1,500 gallons per minute.

All pump-rooms, engine houses, emergency hospitals, foremen offices inside of the mines are made of incombustible material as required by law.

PENNSYLVANIA COAL COMPANY

Pennsylvania Colliery:

Pennsylvania No. 1.—Added to boiler plant outside two batteries of B. and W. boilers, 300 horsepower each. Added one 250 K. V. A. alternating current 2,300 volt generator to electric plant. Installed one 18-foot fan to ventilate Clark vein slope, housed in building constructed of brick, and one 7-foot Stine fan to ventilate Marcy vein, one 20-foot fan at No. 1 shaft to ventilate Dunmore No. 2, Clark and Fourteen Foot veins. Wooden tower at No. 1 shaft replaced by steel tower. Installed first motion hoisting engines 22x48 at No. 1 shaft, housed in building constructed of brick. New engine house constructed of corrugated iron on surface and old hoistings installed to handle coal in Second and Third Dunmore veins. All mule barns, engine houses, emergency hospitals, foremen offices inside of the mines are made of incombustible material.

Pennsylvania No. 5 Colliery.—Erected new hay barn on the outside constructed of corrugated iron. One Duplex slushing pump 24x8x36 installed in a building constructed of corrugated iron on the outside; one 21x20 automatic engine with connections to a 240 K. W. and D. C. generator; one 8x10 McEwen generator with 100 ampere for lighting purposes. Installed on the surface in a building constructed of corrugated iron, one electric hoist, 30 H. P., to handle coal in the No. 1 Dunmore vein in the old No. 2 shaft section. At old No. 2 shaft one 18-foot fan was installed in a building constructed of corrugated iron, to ventilate the Clark No. 1 and No. 3 Dunmore veins. One electric hoist, 25 H. P., installed in No. 1 Dunmore vein to handle coal on slope. One electric hoist, 25 H. P., installed in No. 3 Dunmore vein to handle coal on slope.

Gipsy Grove Colliery.—Old Gipsy Grove breaker destroyed by fire on April 27, 1911. Erected a new head frame and constructed coal pockets of concrete and corrugated iron, from which the coal from the Gipsy Grove mine will be dumped and conveyed to the Pennsylvania No. 1 breaker. Erected a new engine house, carpenter shop and wash-house of wood on the surface.

SCRANTON COAL COMPANY

Pine Brook Colliery.—A rock tunnel 6x12x92 feet long on a pitch of 45 degrees was driven through fault from Dunmore No. 2 vein connecting Dunmore No. 2 vein. A rock tunnel 7x12x240 feet long on a pitch of 2 degrees was driven from Dunmore No. 2 vein connecting Dunmore No. 1 vein. Sunk a shaft for second opening 10x10x30 feet deep from Dunmore No. 1 to Dunmore No. 2 vein. Erected concrete fireproof barn. All pump-rooms, engine houses, emergency hospitals and foremen offices inside of mines are of incombustible material.

Mount Pleasant Colliery.—Erected new fireproof barn of iron and concrete. All pumprooms, engine houses, emergency hospitals and foremen offices inside of mines are of incombustible material.

West Ridge Colliery.—Erected a new second opening provided with 360 feet of steps to be used in an emergency in case the steam plant is put out of commission. Cleaned up and provided a new return airway along side of slope, 2,000 feet long, as a traveling way for men and mules.

Also added during the year fire escapes to the breaker, beginning in the tower and continuing down on the outside of the breaker to the ground; also installed other escapeways from the screen rooms making two escapes from this point.

PRICE-PANCOAST COAL COMPANY

Pancoast Colliery.—All barns, engine houses, pump-rooms and airbridges have been made absolutely fireproof. Fire escapes have been built on both sides of the breaker. A tunnel has been driven from Dunmore No. 4 vein connecting with Dunmore No. 2 vein as an additional outlet from both veins and traveling way. Two 6-inch bore holes have been sunk from the Surface to the Clark vein 430 feet deep for slushing culm into the old workings. One new No. 10 Knowles pump has been installed at the No. 2 Dunmore vein to help take care of the extra water caused by slushing.

FOURTH DISTRICT

LACKAWANNA COUNTY

Scranton, Pa., February 15, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the Fourth Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

S. J. PHILLIPS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	29
Number of mines in operation,	29
Number of tons of coal shipped to market,	3,793,784
Number of tons used at mines for steam and heat,	126,011
Number of tons sold to local trade and used by employes,	152,081
Number of tons produced,	4,071,876
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	12,355
Number of persons employed inside of mines,	6,890
Number of persons employed outside,	1,822
Number of fatal accidents inside of mines,	27
Number of fatal accidents outside,	.....
Number of non-fatal accidents inside of mines,	74
Number of non-fatal accidents outside,	11
Number of tons of coal produced per fatal accident inside,	150,810
Number of persons employed per fatal accident inside,	255
Number of persons employed per fatal accident outside,	.....
Number of persons employed per non-fatal accident inside,	93
Number of persons employed per non-fatal accident outside,	166
Number of wives made widows,	18
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	9
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	83
Number of electric motors used outside,	.....
Number of fans in use,	24
Number of furnaces in use,	.....
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	13
Number of new mines opened,	1
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware, Lackawanna and Western Railroad Company,	3,379,329
Hudson Coal Company,	274,651
Scranton Coal Company,	259,816
Peoples Coal Company,	122,398
Marian Coal Company,	18,291
Minooka Coal Company,	9,493
South Side Coal Company,	5,549
Thorne-Neal Washery Company,	1,969
Carleton Coal Company,	380
Total,	4,071,876

Production by Counties

Lackawanna,	4,071,876

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Delaware, Lackawanna and Western Railroad Co.,	17	.....	17	52	7	59	198,784	64,987	5,530	1,268	6,798	325	.....	106	181
Hudson Coal Co.,	3	.....	3	5	2	7	91,550	54,930	646	228	874	215	.....	129	114
Scranton Coal Co.,	4	.....	4	12	1	13	64,954	21,651	514	113	627	129	.....	43	113
Peoples Coal Co.,	2	.....	2	5	1	6	61,199	24,480	172	100	272	86	.....	34	100
Minooka Coal Co.,	1	.....	1	.....	.....	.....	9,493	.....	14	11	25	14	.....	.....	.....
Miscellaneous Companies,	.....	.....	.....	.....	.....	.....	.....	.....	14	102	116	.....	.....	.....	.....
Totals and averages for district,	27	.....	27	74	11	85	150,810	55,025	6,890	1,822	8,712	255	.....	93	166

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of roof,			1	4		3		2	1		1	2	14	51.85
Mine cars,	1		1	1		1							4	14.82
Blasts, premature and otherwise,			1	1	1	1		1			1	1	7	25.93
Machinery,							1						1	3.70
Falling timber,					1								1	3.70
Totals,	1		3	6	2	5	1	3	1		2	3	27	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,								1	1				2	2.70
Falls of roof,	1	1		2	2	1	1	2	5	2	1	4	22	29.73
Mine cars,	2	1	1	1	2	2	2	5		4	1	3	24	32.44
Explosions of gas,							1				1		2	2.70
Explosions of powder and dynamite,					1				1		2	2	6	8.11
Blasts, premature and otherwise,	1	1			2	1		1	3		1	2	12	16.22
Mules,							1						1	1.35
Machinery,												1	1	1.35
By falling,						1		1					2	2.70
Struck by rope,		1								1			2	2.70
Totals,	4	4	1	3	7	5	5	16	10	7	6	12	74	100.00
Causes of Accidents Outside														
Cars,											1		1	9.09
Machinery,		1					1	1				1	4	36.37
By falling,	1							1			1		3	27.27
Struck by timber,								1					1	9.09
Struck by rope,								1					1	9.09
Struck by bridge,									1				1	9.09
Totals,	1	1					1	4	1		2	1	11	100.00
Grand totals inside and outside,	5	5	1	3	7	5	6	14	11	7	8	13	85	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,				5	2	2		1			2	2	14
Miners' laborers,			2			2		1				1	6
Drivers and runners,	1			1		1							3
Company men,									1				1
Footmen,			1				1						2
Bratticemen,								1					1
Totals,	1		3	6	2	5	1	3	1		2	3	27
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,		1											1
Miners,	2	2	1	1	1	3		2	5		2	7	26
Miners' laborers,	1			1	5	1	3	4	5	2	3	2	27
Drivers and runners,						1	2	2		3	1	3	12
Doorboys and helpers,	1							1		1			3
Company men,				1									1
Footmen,		1											1
Brakemen,					1								1
Pipemen,								1					1
Road cleaners,										1			1
Totals,	4	4	1	3	7	5	5	10	10	7	6	12	74
Outside													
Foremen,								1					1
Blacksmiths and carpenters,												1	1
Slatepickers (boys)	1										1		2
Slatepickers (men),							1	1					2
Laborers,		1						1			1		3
Machinists,								1					1
Teamsters,									1				1
Totals,	1	1					1	4	1		2	1	11
Grand totals inside and outside,	**5**	**5**	**1**	**3**	**7**	**5**	**6**	**14**	**11**	**7**	**8**	**13**	**85**

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	1	1	....	....	1	....	....	....	....	....	4
Welsh,	....	....	....	....	1	....	....	1	....	....	....	1	3
Irish,	....	....	....	....	....	....	....	....	1	....	....	....	1
German,	....	....	....	1	....	....	....	....	....	....	....	....	1
Polish,	....	....	1	2	1	3	....	....	....	....	1	2	10
Italian,	....	....	....	1	....	....	....	2	....	....	....	....	3
Slavonian,	....	....	....	....	....	2	....	....	....	....	....	....	2
Lithuanian,	....	....	1	1	....	....	....	....	....	....	1	....	3
Totals,	1	....	3	6	2	5	1	3	1	....	2	3	27

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	....	1	2	1	3	1	1	2	....	4	17
English,	....	....	....	....	....	....	....	2	....	....	1	....	3
Welsh,	....	....	....	....	....	....	....	1	....	2	....	1	4
Irish,	1	2	....	....	....	....	....	....	1	....	2	2	8
German,	....	....	....	....	....	....	....	1	....	....	....	....	1
Polish,	2	1	1	1	5	3	3	5	4	3	2	4	34
Hungarian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Italian,	1	....	....	....	....	....	....	3	2	....	1	2	9
Slavonian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Lithuanian,	....	....	....	....	....	1	....	....	3	....	2	....	6
Russian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	5	5	1	3	7	5	6	14	11	7	8	13	85

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Lackawanna and Western Railroad Co.																
Archbald Colliery:																
Archbald,	Shaft,	Gaseous,	Fan,	24	8	6	66	1.7	Guibal,	Steam,	20	199,570	197,100	238,845	764	
Continental Colliery:																
Continental,	Shaft,	Gaseous,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	9	187,805	177,885	235,625	513	
Hyde Park Colliery:																
Hyde Park,	Shaft,	Gaseous,	Fan,	24	8	6	64	1.4	Open,	Steam,	13	189,413	126,000	211,540	509	
Hyde Park,	Slope,	Non-gas.,	Fan,	14	4.5	4	57	.4	Guibal,	Electricity,	3	30,280	21,300	35,100	86	
Hampton Colliery:																
Hampton,	Shaft,	Gaseous,	Fan,	12	4	4	102	.1	Open,	Steam,	5	59,650	44,320	59,900	178	
Sloan Colliery:																
Sloan,	Shaft,	Gaseous,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	10	164,475	120,375	198,690	440	
Sloan (Surface),	Shaft,	Non-gas.,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	3	23,400	22,280	26,720	109	
Central,	Shaft,	Gaseous,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	7	138,220	126,190	148,800	371	
Bellevue Colliery:																
Bellevue,	Shaft,	Gaseous,	2 Fans,	16	4.6	4	112	.9	Guibal,	Steam,	7	101,000	93,000	111,000	394	
				14	4	4	112	.9			5	61,955	53,625	70,735	139	
Bellevue,	Slope,	Gaseous,	Fan,	14	4	4	112	.9	Guibal,	Steam,	5	74,720	66,065	84,280	130	
Dodge Colliery:																
Dodge,	Shaft,	Gaseous,	Fan,	25	8	7	51	1.1	Guibal,	Steam,	6	106,185	92,833	193,785	428	
Dodge,	Slope,	Gaseous,	Fan,	14	3.5	3.5	112	.9	Open,	Steam,	4	46,337	37,956	49,395	165	

Holden Colliery:																
Holden,	Shaft,	Gaseous,	Fan,	25	8	6	55	1.1	Guibal,	Steam,		6	132,400	128,600	145,264	413
National Colliery:																
National,	Shaft,	Gaseous,	Fan,	15	4	4	120	1.5	Guibal,	Steam,		8	110,000	95,300	121,700	465
National,	Drift,	Non-gas.,	Natural,										121,700	112,900	163,000	47
Greenwood Colliery:																
Greenwood New No. 1,	Shaft,	Gaseous,	Fan,	17	5	5	75	.4	Guibal,	Steam,		2	29,900	27,500	32,450	112
Greenwood Old No. 1,	Shaft,	Non-gas.,	Fan,	17	5	5	80	.4	Guibal,	Steam,		2	29,900	27,100	33,300	91
Greenwood No. 2,	Slope,	Non-gas.,	Fan,	14	4	4	75	.4	Guibal,	Steam,		2	29,800	27,900	31,900	115
Greenwood No. 12,	Drift,	Non-gas.,	Natural,										32,700	30,700	34,900	44
Greenwood No. 8,	Drift,	Non-gas.,	Natural,										18,400	17,400	19,100	80
Greenwood No. 11,	Drift,	Non-gas.,	Natural,										9,100	8,500	10,200	30
Greenwood No. 2, No. 14,	Drift,	Non-gas.,	Natural,										9,600	8,250	11,700	29
Greenwood No. 2, No. 15,	Drift,	Non-gas.,	Fan,	10	3.3	2.5	75	.3	Guibal,	Steam,			11,800	10,080	13,050	6
Greenwood No. 2, No. 16,	Drift,	Non-gas.,	Fan,	11	3.25	2.5	70	.3	Guibal,	Steam,			15,600	14,040	16,500	37
Greenwood No. 2,	Shaft,	Gaseous,	Fan,	17	5	5	75	.7	Guibal,	Steam,		2	45,700	40,800	52,880	102
Scranton Coal Co.																
Capouse Colliery:																
Capouse,	Shaft,	Gaseous,	2 Fans,	20	5	5	75	1	Guibal,	Steam,		9	140,000	135,000	152,500	514
				18	5.6	5	80	1								
Peoples Coal Co.																
Oxford Colliery:																
Oxford,	Shaft,	Gaseous,	Fan,	16	6	5	95	.7	Vulcan,	Steam,		9	95,000	95,000	110,000	172
Minooka Coal Co.																
Minooka Colliery:																
Minooka,*	Slope,	Non-gas.,	Natural,										16,600	10,000	25,000	14
Carleton Coal Co.																
National Colliery:																
National,*	Drift,	Non-gas.,	Natural,										14,000	6,500	15,000	14

*It is difficult to measure the air owing to the many connections in the old workings together with cave holes.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware, Lackawanna and Western Railroad Co.						
Archbald,				T. J. Williams,	Scranton,	D. L. and W.
Continental,						
Hyde Park,						
Hampton,						
Sloan,	Lackawanna,	C. E. Tobey,	Scranton,			
Bellevue,				E. J. Evans,	Scranton,	
Dodge,						
Holden,						
National,						
Washeries						
Archbald,				T. J. Williams,	Scranton,	D. L. and W.
Hyde Park,	Lackawanna,	C. E. Tobey,	Scranton,	T. J. Williams,		
Hampton,				G. J. Wethers,		
Bellevue,				E. J. Evans,		
Hudson Coal Co.						
Greenwood,	Lackawanna,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	D. and H.
Greenwood Washery,						
Scranton Coal Co.						
Capouse,	Lackawanna,	W. L. Allen,	Peckville,	Daniel Young, Inside.	Scranton,	O. and W.
				J. F. Cummings, Outside.		
Peoples Coal Co.						
Oxford,	Lackawanna,	John G. Hayes,	Scranton,			D. L. and W.
Marian Coal Co.						
Marian Washery,	Lackawanna,	W. P. Boland,	Scranton,	Mantice Sullivan,	Scranton,	D. L. and W.
Minooka Coal Co.						
Minooka,	Lackawanna,	M. J. Rafferty,	Scranton,	Thomas F. Quinn,	Scranton,	

South Side Coal Co. South Side Washery,	Lackawanna,	Richard Bradley,	Scranton,		D. and H.
Thorne-Neal Washery Co. Thorne-Neal Washery,	Lackawanna,	James B. Neale,	Minersville,		D. and H.
Carleton Coal Co. National,	Lackawanna,	John Gibbons,	Scranton,		

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Delaware, Lackawanna and Western Railroad Co.													
Archbald,	Lackawanna,	438,192	14,165	18	452,375	263	904	4	6	522,925	4,005	----------	101
Continental,		288,249	324	1,861	290,434	264	635	4	6	284,550	6,264	----------	80
Hyde Park,		281,753	47	24,444	306,244	265	671	1	8	499,975	38,911	3,300	52
Hampton,		75,831	----------	16	75,847	130	232	----	4	54,650	2,753	----------	29
Sloan,		449,300	450	38	449,788	258	1,065	2	11	642,725	29,073	----------	43
Bellevue,		440,599	520	26,437	467,556	273	1,045	2	6	539,425	15,124	----------	38
Dodge,		265,402	----------	----------	265,402	257	707	1	5	295,625	29,768	----------	41
Holden,		287,252	18,044	1,584	306,880	277	496	2	2	315,625	3,000	----------	29
National,		272,953	14,015	5,005	291,973	280	702	1	10	451,750	20,854	----------	60
	----------	2,799,531	47,565	59,403	2,906,499	----------	6,458	17	58	3,607,250	149,842	3,300	473
Washeries													
Archbald,	Lackawanna,	152,057	----------	----------	152,057	375	56	----	----	----------	----------	----------	----
Hyde Park,		128,830	----------	----------	128,830	366	30	----	----	----------	----------	----------	----
Hampton,		104,646	----------	----------	104,646	----------	68	----	----	----------	----------	----------	2
Bellevue,		87,297	----------	----------	87,297	98	58	----	1	----------	----------	----------	4
Water Shaft,		----------	----------	----------	----------	----------	6	----	----	----------	----------	----------	----
Dodge Steam Plant,		----------	----------	----------	----------	----------	18	----	----	----------	----------	----------	----

Hampton Steam Plant,	Lackawanna,						65						
Hampton Power Station,							8						
Continental Lumber Yard,							30						6
		472,830			472,830		340		1				12
Totals,		3,272,361	47,565	59,403	3,379,329		6,798	17	59	3,607,250	149,842	3,300	485
Hudson Coal Co.													
Greenwood,	Lackawanna,	222,100	43,593	2,657	268,350	158	847	3	7	509,250	54,153	227	115
Greenwood Washery,		4,273	2,028		6,301	22	27						
Totals,		226,373	45,621	2,657	274,651		874	3	7	509,250	54,153	227	115
Scranton Coal Co.													
Capouse,	Lackawanna,	233,001	23,500	3,315	259,816	211	627	4	13	350,625	19,500		71
Peoples Coal Co.													
Oxford,	Lackawanna,	42,055	6,929	73,414	122,398	185	272	2	6	181,975	4,500		92
Marian Coal Co.													
Marian Washery,	Lackawanna,	12,833	1,596	3,862	18,291	133	34						2
Minooka Coal Co.													
Minooka,	Lackawanna,	190	300	9,003	9,493	168	25	1		4,200	200		3
South Side Coal Co.													
South Side Washery,	Lackawanna,	5,502		47	5,549	42	21						
Thorne-Neal Washery Co.													
Thorne-Neal Washery,	Lackawanna,	1,469	500		1,969	8	36						
Carleton Coal Co.													
National,	Lackawanna,			380	380	10	25			625			2
Grand totals,		3,793,784	126,011	152,081	4,071,876		8,712	27	85	4,653,925	228,195	3,527	770

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	------	------	50	14,752	14,752	5	------	83	148	24,708	26	33,250	22,410	21	2
Hudson Coal Co.,		15	405	9	1,575	1,980	4	------	------	68	1,906	9	5,000	2,500	1	2
Scranton Coal Co.,		------	------	7	1,075	1,075	------	------	------	12	1,150	5	5,700	4,500	------	1
Peoples Coal Co.,		5	1,500	------	------	1,500	------	------	------	14	850	3	1,575	750	2	1
Marian Coal Co.,		1	150	2	160	310	------	------	------	3	95	------	------	------	------	------
Minooka Coal Co.,		------	------	1	40	40	------	------	------	3	110	------	------	------	------	------
South Side Coal Co.,		1	40	------	------	40	------	------	------	------	------	------	------	------	1	------
Thorne-Neal Washery Co.,		------	------	6	600	600	------	------	------	7	225	------	------	------	4	------
Carleton Coal Co.,		------	------	------	------	------	------	------	------	------	------	------	------	------	1	------
Totals,		22	2,095	75	18,202	20,297	9	------	83	255	29,044	43	45,525	30,160	30	6

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total Inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	15	10	44	1,869	1,899	343	121	43	486	700	5,530	------	17	61	143	286	36	32	693	1,268	6,798
Hudson Coal Co.,		2	1	3	277	218	58	1	2	23	61	646	------	1	15	37	15	7	4	149	228	874
Scranton Coal Co.,		1	1	4	163	128	84	21	6	------	106	514	------	1	8	11	31	17	2	43	113	627
Peoples Coal Co.,		1	2	3	72	55	20	7	2	10	------	172	1	1	7	8	14	10	6	53	100	272
Marian Coal Co.,		----	----	----	----	----	----	----	----	----	------	------	1	1	4	2	5	----	2	19	34	34
Minooka Coal Co.,		1	----	----	5	5	2	------	------	1	------	14	------	----	----	2	6	1	1	1	11	25
South Side Coal Co.,		----	----	----	----	----	----	----	----	----	------	------	------	1	1	----	5	----	1	13	21	21
Thorne-Neal Washery Co.,		----	----	----	----	----	----	----	----	----	------	------	1	1	1	2	6	----	1	24	36	36
Carleton Coal Co.,		1	----	----	5	5	1	------	------	2	------	14	1	1	1	----	5	----	----	3	11	25
Totals,		21	14	54	2,391	2,310	508	150	53	522	867	6,890	4	24	98	205	373	71	49	998	1,822	8,712

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	23	16	15	19	24	23	22	24	22	22	21	21	252
Hudson Coal Co.,		13	13	15	12	14	13	12	14	14	14	12	12	158
Scranton Coal Co.,		18	16	20	17	18	19	17	20	18	16	16	16	211
Peoples Coal Co.,		16	16	18	14	14	15	14	15	14	15	16	18	185
Minooka Coal Co.,		18	16	18	13	15	10	10	12	14	12	16	14	168
Carleton Coal Co.,													10	10

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 17	Gwilym Evans,	American,	Driver,	19	S.	----	----	Capouse,	Lackawanna,	Instantly killed between car and rib 100 feet from face of chamber.
Mar. 3	John McDonough,	American,	Footman,	23	S.	----	----	Continental,		Finger slightly injured by cars at foot of shaft. Died from lock-jaw March 13.
15	John Arkfirst,	Polish,	Laborer,	38	M.	1	4	Continental,		Instantly killed by fall of roof at face of chamber.
27	Ignatz Deinski,	Lithuanian,	Laborer,	47	M.	1	----	Capouse,		Leg fractured by a blast fired in a cross-cut near face of chamber. Died April 1.
April 3	Norman Managzi,	Italian,	Miner,	35	M.	1	----	Sloan,		Killed by blast at face of chamber. He failed to heed the warning given.
7	Michael Folan,	American,	Driver,	16	S.	----	----	Greenwood,		Killed by cars 135 feet from face of chamber. He probably got in the dark.
22	Frank Mashieski,	Polish,	Miner,	49	M.	1	2	Dodge,		Instantly killed by fall of rock in face of chamber.
24	Adam Kenner,	German,	Miner,	50	M.	1	6	Archbald,		Instantly killed by fall of rock at face of pillar.
26	William Smith,	Lithuanian,	Miner,	29	M.	1	1	Capouse,		Instantly killed by fall of roof at face of pillar.
27	Peter Lipka,	Polish,	Miner,	32	M.	1	2	Hyde Park,		Instantly killed by fall of roof at face of chamber.
May 1	Thomas Jenkins,	Welsh,	Miner,	40	M.	1	2	Archbald,		Instantly killed by a blast at the face.
29	Stanley Valpiski,	Polish,	Miner,	38	M.	1	3	Continental,		Killed by falling collar near face of gangway.
June 1	Mike Vinoski,	Slavonian,	Driver,	21	S.	----	----	Holden,		Fatally injured by falling from the front bumper of a moving car 150 feet from face of chamber. Died a few hours later.
8	Peter Aleo,	Polish,	Laborer,	34	M.	1	2	Bellevue,		Fatally injured by fall of roof in face of chamber. Died a few hours later.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 10	John Estok,	Slavonian,	Miner,	30	S.			Holden,		Fatally injured by a blast in face of chamber. Died a few hours later.
21	Joseph Vladsorick,	Polish,	Miner,	34	S.			Archbald,		Instantly killed by fall of roof at face of chamber.
	Joseph Shaught,	Polish,	Laborer,	48	M.	1				
July 18	James J. Walsh,	American,	Footman,	30	S.			Greenwood,		Instantly killed by being caught between cage and roof.
Aug. 12	Erego Monarchi,	Italian,	Laborer,	23	S.			National,		Instantly killed by premature blast at face of chamber.
21	Frank Proetti,	Italian,	Miner,	25	S.			Oxford,		Instantly killed by fall of roof in cross-cut near face.
26	David Davis,	Welsh,	Bratticeman,	51	M.	1		Bellevue,		Instantly killed by fall of roof 25 feet from air-shaft.
Sept. 18	Michael Quinn,	Irish,	Company man	44	M.	1	5	Minooka,	Lackawanna,	Instantly killed by fall of roof at face of pillar.
Nov. 18	Anthony Gavek,	Polish,	Miner,	42	M.	1	4	Continental,		Fatally injured by premature blast at face of chamber. Died a few hours later.
22	John Krotski,	Lithuanian,	Miner,	25	M.	1	2	Capouse,		Instantly killed by fall of roof at face of chamber.
Dec. 3	Leo Yepshim,	Polish,	Miner,	42	M.	1	4	Oxford,		Instantly killed by fall of roof at face of chamber.
20	Ignatz Koshinski,	Polish,	Laborer,	30	M.	1		Sloan,		Fatally injured by fall of roof in face of chamber. Died in hospital a few hours later.
23	Hugh Oliver,	Welsh,	Miner,	33	M.	1	2	Greenwood,		Fatally injured by flying coal from a blast. Died in hospital a few hours later.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	John Varrnito,	Polish,	Miner,	42	M.	Sloan,	Lackawanna,	Injured by flying coal from blast at face of chamber.
9	Leo Zailow,	Italian,	Slatepicker,	14	S.	Dodge,		Leg broken by sliding in chute in breaker. Outside.
13	Charles Johnson,	American,	Doorboy,	17	S.	Capouse,		Injured by jumping on mine cars on main road.
17	Thomas Durkin,	Irish,	Miner,	38	M.	Hampton,		Slightly injured while replacing derailed car at face.
21	Ignatz Laboski,	Polish,	Laborer,	40	S.	Sloan,		Injured by fall of roof at face of chamber.
Feb. 2	Frank McDonnell,	Irish,	Miner,	57	M.	Bellevue,		Leg fractured by fall of roof at face after a blast had been fired.
8	Thomas Langan,	Irish,	Assistant foreman,	53	M.	Oxford,		Injured by being struck by haulage rope at foot of inside slope.
15	John Rubcoski,	Polish,	Miner,	35	M.	Greenwood,		Head and body injured by blast at face.
20	Mike Sotok,	Slavonian,	Footman,	22	M.	Archbald,		Leg fractured by cars at foot of shaft.
21	Patrick Healy,	American,	Laborer,	16	S.	Greenwood,		Seriously injured in breaker machinery. Outside.
Mar. 3	Joe Visendki,	Polish,	Miner,	37	M.	Hampton,		Knee injured by cars on gangway road.
April 18	Mike Yencavitch,	Hungarian,	Laborer,	21	S.	Archbald,		Foot crushed by fall of rock at face of chamber.
19	John Keeley,	American,	Company man,	41	S.	Capouse,		Slightly injured by cars on gangway road.
20	Andrew Yownich,	Polish,	Miner,	30	M.	Oxford,		Leg fractured by fall of rock at face of chamber.
May 12	John Ornutt,	Polish,	Laborer,	26	M.	Sloan,		Injured by fall of roof at face of chamber.
18	Stephen Bieryta,	Polish,	Miner,	23	M.	Greenwood,		Injured by blast while charging a hole in the face of chamber.
	Julian Rufalo,	Polish,	Laborer,	22	S.			
24	Sylvester Sokoskie,	Polish,	Laborer,	24	S.	Hyde Park,		Legs and skull fractured by fall of roof at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
May 24	Victor Moreski,	Polish,	Laborer,	25	M.	Continental,		Ribs fractured by derailed car on gangway road.
25	Joseph King,	American,	Laborer,	21	S.	Greenwood		Hands and face burned by explosion of powder at a point near crop.
27	Eugene Ingalls,	American,	Brakeman,	21	M.	Archbald,		Leg fractured by cars on gangway road.
June 1	Frank Gallagher,	American,	Runner,	18	S.	Greenwood,		Two fingers crushed by cars.
8	Adolph Tech,	Lithuanian,	Miner,	32	M.	Hyde Park,		Injured by fall of roof at face of chamber.
17	Frank Moleski,	Polish,	Laborer,	26	S.	Dodge,		Leg fractured by car at face of chamber.
20	Joseph Stancavidge,	Polish,	Miner,	40	M.	Capouse,		Injured by falling while retreating from a blast at face of chamber.
27	William Kanohka,	Polish,	Miner,	28	M.	Sloan,		Slightly injured by blast at face of chamber.
July 10	Ralph Singer,	American,	Driver,	17	S.	Hyde Park,	Lackawanna,	Kicked in abdomen by mule at face of gangway.
15	Benjamin Sanders,	American,	Driver,	18	S.	Hyde Park,		Leg broken by falling under car on gangway road.
18	John Kubeski,	American,	Slatepicker,	14	S.	Greenwood,		Instep of left foot burned by coming in contact with machinery in breaker. Outside.
24	Lewis Novick,	Polish,	Laborer,	31	S.	Capouse,		Left arm broken by fall of roof at face.
31	John Kakurka,	Polish,	Laborer,	28	S.	Sloan,		Arms and face slightly burned by gas at face.
	Charles Sportoski,	Polish,	Laborer,	23	S.	Continental,		Foot injured by fall of roof while sitting in chamber.
Aug. 5	Stanley David,	Polish,	Driver,	20	S.	Hampton,		Finger crushed between car bumpers on main road.
8	Edward Smith,	English,	Machinist,	41	M.	Continental,		Leg fractured while starting engine that had stopped on center. Outside.
	Frank Constant,	Polish,	Miner,	24	M.	Bellevue,		Leg fractured while running car into his chamber.

Aug.	9	Paul Joel,	Polish,	Slatepicker,	18	S.	Dodge,		Concussion of brain. Fell from chute in breaker. Outside.
	11	Harry Yasandri,	Italian,	Laborer,	31	S.	Oxford,		Leg fractured by fall of roof at face.
	12	Feversta O. Nible,	Italian,	Miner,	35	M.	National,		Head and arm injured by premature blast at face.
	19	Steven Summerhill,	English,	Laborer,	61	M.	Hyde Park,		Ankle dislocated by being struck by slope rope. Outside.
	21	Henry de Hout,	German,	Mason foreman,	44	M.	National,		Thumb of left hand crushed while removing timber in engine-house. Outside.
	23	Dan Matthias,	Welsh,	Pipeman,	35	M.	Bellevue,		Ankle injured by slipping while walking in old workings.
	24	Armando Bartolli,	Italian,	Laborer,	23	S.	National,		Left leg fractured by top coal falling off rib at face.
	25	Andrew Kopak,	Polish,	Doorboy,	18	S.	Hampton,		Leg fractured by falling under cars on main road.
	26	Carl Carson,	American,	Driver,	17	S.	Capouse,		Leg broken. Mine car on main road became derailed and caught him.
	29	Hren Yanco,	Russian,	Laborer,	26	S.	Holden,		Left leg fractured by cars at face of chamber.
	31	Charles Bohn,	Polish,	Laborer,	25	S.	National,	Lackawanna,	Compound fracture of right leg by fall of roof at face of pillar.
Sept.	1	John Hefron,	Irish,	Miner,	55	M.	National,		Injured by flying coal from blast at face.
		Chesri Gittzy,	Italian,	Laborer,	27	S.			
		Louis Nolan,	Italian,	Laborer,	18	S.			
	5	John Rekys,	Lithuanian,	Miner,	26	M.	Capouse,		Back injured by fall of roof at face of chamber.
		William Boloch,	Polish,	Laborer,	21	S.	Continental,		Ankle fractured by fall of roof at face of chamber.
	8	Alvin Whiting,	American,	Teamster,	28	M.	Oxford,		Back injured by being squeezed between bridge and load of hay. Outside.
	11	Joseph Rofkofski,	Polish,	Miner,	33	M.	Hyde Park,		Leg, scalp and ankle injured by fall of roof at face.
	12	Adam Dink,	Lithuanian,	Laborer,	36	S.	Capouse,		Top of left thumb cut off by fall of roof at face.
	13	Charles Slack,	Lithuanian,	Miner,	39	M.	Capouse,		Collar-bone broken and chest bruised by fall of coal off skip in chamber.
	14	John Publoski,	Polish,	Miner,	44	S.	Bellevue,		Head, hands and body injured by explosion of powder. He stumbled on way to prepare hole for firing.
	26	Stanley Nebeski,	Polish,	Laborer,	23	S.	Sloan,		Compound fracture of leg by fall of roof at face.
Oct.	4	Frank Mno,	Polish,	Laborer,	31	S.	Capouse,		Hip and hand slightly bruised by fall of roof at face.
	7	Martin Menick,	American,	Driver,	18	S.	Hyde Park,		Foot crushed by cars in chamber.
	9	Moses Howells,	American,	Runner,	20	S.	Continental,		Arm fractured by cars on gangway road.
	10	Thomas Jones,	Welsh,	Road-cleaner,	56	S.	Archbald,		Clavicle fractured by tail-rope on main road.
	12	Harry Cobb,	Polish,	Driver,	16	S.	National,		Body lacerated and back contused while riding on car bumper on gangway road.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 26	Harry Williams,	Welsh,	Motor-helper,	24	M.	Bellevue,		Right side bruised by cars on main road.
27	John Kilvosa,	Polish,	Laborer,	35	M.	Dodge,		Arm broken by fall of roof at face.
Nov. 14	Patrick Haggerty,	Irish,	Laborer,	38	M.	Capouse,		Left hip bone fractured by being squeezed between mine car and breaker beam. Outside.
17	Charles Mocarkus,	Lithuanian,	Laborer,	23	S.	Capouse,		Four ribs broken by fall of roof at face.
18	John Shoustky,	Lithuanian,	Driver,	19	S.	Capouse,		Hip and back bruised while riding on car bumper on main road.
27	Joseph Goulda,	Polish,	Laborer,	17	S.	Oxford,		Face and hands burned by gas at face.
29	Richard Brown,	English,	Miner,	50	M.	Bellevue,		Femur and tibia fractured by premature blast at face.
	Adelmo Bucarie,	Italian,	Slatepicker,	16	S.	National,	Lackawanna,	Face injured by falling from chute in breaker. Outside.
	Michael Hogan,	Irish,	Miner,	50	M.	Sloan,		Burned by powder at face.
	Eddie Sabiski,	Polish,	Laborer,	25	S.	Sloan,		
Dec. 6	Howard Hopkins,	American,	Driver,	18	S.	Capouse,		Instep injured by being caught by derailed car on gangway road.
8	Llewellyn Davis,	Welsh,	Miner,	56	M.	Continental,		Back, head and leg injured by fall of roof at face.
11	John Coggins,	American,	Driver,	18	S.	Dodge,		Two ribs broken while riding on bumper of cars on main road.
14	Mike Curry,	Irish,	Miner,	50	S.	Oxford,		Nose, leg and arm injured by premature blast at face.
15	Peter Pattola,	Italian,	Miner,	48	M.	Sloan,		Face and hands burned by powder at face.
	Julius Labosky,	Polish,	Laborer,	35	S.			
20	Roman Simonsky,	Polish,	Miner,	23	S.	Sloan,		Right arm lacerated by fall of roof at face.
21	Alex. Shifizick,	Polish,	Miner,	42	M.	Holden,		Face and left arm cut by flying coal from blast in cross-cut near face.

Dec.	26	William Duffy,	American,	Blacksmith helper,	33	M.	Bellevue,		Scalp wounded and back sprained on cage near sheave-wheel. Outside.
	27	Patrick Mulderig,	Irish,	Miner,	52	M.	Archbald,		General contusions. Fall of roof at face.
		Paul Duda,	Polish,	Laborer,	23	S.			
	30	John M. Jones,	American,	Driver,	18	S.	Hyde Park,	Lackawanna,	Body badly lacerated by being struck at foot of shaft by piece of "Fan," which broke and fell from tower of breaker.
		Memio Parotti,	Italian,	Miner,	24	M.	National,		Right leg fractured by mine car 25 feet from face.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Archbald.—Ventilation, drainage and condition as to safety, good.

Continental.—Ventilation, drainage and condition as to safety, good.

Hyde Park.—Ventilation, drainage and condition as to safety, good.

Hampton.—Ventilation, drainage and condition as to safety, good.

Sloan.—Ventilation in Sloan Surface vein is only fair. A new air-shaft is being sunk to improve this condition. Otherwise, the ventilation, drainage and condition as to safety are good.

Bellevue.—Ventilation, drainage and condition as to safety, good.

Dodge.—Ventilation, drainage and condition as to safety, good.

Holden.—Ventilation, drainage and condition as to safety, good.

National.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Greenwood.—The ventilation where fans are in use is good. In the openings where natural causes are depended upon the quantity is a variable one, but sufficient to maintain a healthy condition. Drainage fair; condition as to safety, good.

SCRANTON COAL COMPANY

Capouse.—Ventilation, drainage and condition as to safety, good.

PEOPLES COAL COMPANY

Oxford.—Ventilation and drainage fair; condition as to safety, good.

MINOOKA COAL COMPANY

Minooka.—Ventilation, drainage and condition as to safety, good.

CARLETON COAL COMPANY

National.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Archbald Colliery.—All the inside buildings reconstructed of incombustible material.

Continental Colliery.—The 12′x4′x4′ ventilating fan was replaced by a new 24′x8′x6′ fan, which was put into operation March 20. All the inside buildings reconstructed of incombustible material.

Hyde Park Colliery.—A 7′x12′ tunnel, 220 feet long, was driven from the Rock to the Diamond vein. All the inside buildings reconstructed of incombustible material.

Hampton Colliery.—All the buildings reconstructed of incombustible material.

Sloan Colliery.—The new air-shaft was sunk a distance of 336 feet during the year.

Bellevue Colliery.—New annex to breaker under construction. Two Triplex Plunger pumps installed. Two low vein coal-cutting machines installed. New concrete mule barn inside.

Dodge Colliery.—New locomotive house. (Outside.) One additional electric locomotive installed. One new 750 gallon fire-pump installed. New concrete mule barn inside. New wash-house.

Holden Colliery.—One additional electric locomotive installed. One additional boiler installed. New wash-house. New concrete barn inside.

National Colliery.—Rock tunnel, No. 2 to No. 1 Dunmore vein. New wash-house. New concrete barn inside.

This Company is to be commended for its efforts in educating its non-English speaking employes. Colonel R. A. Phillips, the General Manager, conceived the idea of having pictures taken in the mines showing how accidents occur and how they are prevented. Two hundred of these pictures appear in book form with simple statements. The book was prepared under the direction of Colonel Phillips and Mr. C. E. Tobey, Superintendent of the Coal Mining Department, and ten thousand copies have been printed and will be distributed to groups known as extension schools in the various mining communities. The company is promoting this educative work through the local branch of the Young Men's Christian Association.

SCRANTON COAL COMPANY

Capouse Colliery.—All inside buildings reconstructed of incombustible material.

PEOPLES COAL COMPANY

Oxford Colliery.—New mule barn inside constructed of incombustible material.

New breaker was erected south of the site of the old breaker with a capacity of 1,500 tons daily, equipped with the most modern machinery of every kind.

CARLETON COAL COMPANY

National Colliery.—New breaker erected, capacity 100 tons daily. Began operations December 12.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the City Hall, Scranton, April 15 and 16. The Board of Examiners was composed of the following persons: H. O. Prytherch, Mine Inspector, Scranton; John P. Corcoran, Superintendent, Rendham; William J. Jenkins, Miner, Scranton; James W. Reese, Miner, Scranton.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas W. Jones, John J. Lavelle, David R. Gibbs, Eleazer E. Morgans, Scranton; Henry Edwards, Thomas J. Corcoran, Old Forge; John D. Price, Rendham; Thomas H. Galbraith, Moosic; Benjamin Jenkins, Taylor.

Assistant Mine Foremen

Reese Jones, David Beacham, Evan Jones, John Griffiths, Steve Martin, Oliver P. Clark, Benjamin G. Isaacs, John Jones, Scranton.

FIFTH DISTRICT

LACKAWANNA AND LUZERNE COUNTIES

Rendham, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit my report as Inspector of Mines for the Fifth Anthracite District, for the year ending December 31, 1911, as required by Act of April 14, 1903.

Respectfully submitted,
AUGUSTUS McDADE, Inspector.

14—24—1911

SUMMARY OF STATISTICS

Number of collieries,	12
Number of mines,	32
Number of mines in operation,	32
Number of tons of coal shipped to market,	3,610,682
Number of tons used at mines for steam and heat,	255,444
Number of tons sold to local trade and used by employes,	44,112
Number of tons produced,	3,910,238
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	5,282
Number of persons employed outside,	1,931
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	25
Number of non-fatal accidents outside,	11
Number of tons of coal produced per fatal accident inside,	162,926
Number of persons employed per fatal accident inside,	220
Number of persons employed per fatal accident outside,	1,931
Number of persons employed per non-fatal accident inside,	211
Number of persons employed per non-fatal accident outside,	175
Number of wives made widows,	17
Number of children made orphans,	34
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	12
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	63
Number of electric motors used outside,	.....
Number of fans in use,	22
Number of furnaces in use,	3
Number of gaseous mines in operation,	13
Number of non-gaseous mines in operation,	19
Number of new mines opened,	1
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal Company,	1,404,361
Delaware, Lackawanna and Western Railroad Company,	1,093,934
Jermyn and Company,	626,667
Hillside Coal and Iron Company,	342,271
Elliott McClure and Company,	270,678
Hudson Coal Company,	152,056
Lehigh Valley Coal Company,	18,522
Moosic Coal Company,	1,749
Total,	3,910,238

Production by Counties

Lackawanna,	2,826,600
Luzerne,	1,083,638
Total,	3,910,238

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal Co.,	5	----	5	3	1	4	280,272	468,120	1,629	713	2,342	326	----	543	713
Delaware, Lackawanna and Western Railroad Co.,	7	----	7	7	3	10	156,276	156,276	1,640	446	2,086	234	----	234	149
Jermyn and Co.,	7	1	8	2	1	3	89,524	313,333	822	238	1,060	117	238	411	238
Hillside Coal and Iron Co.,	1	----	1	3	3	6	342,271	114,090	314	234	548	314	----	104	78
Elliott McClure and Co.,	2	----	2	8	2	10	135,339	33,834	530	159	689	265	----	66	79
Hudson Coal Co.,	2	----	2	2	1	3	76,028	76,028	293	125	418	146	----	146	125
Miscellaneous Companies,	----	----	----	----	----	----	----	----	54	16	70	----	----	----	----
Totals and averages for district,	24	1	25	25	11	36	162,926	156,409	5,282	1,931	7,213	220	1,931	211	175

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,								1					1	4.16
Falls of slate,		1											1	4.17
Falls of roof,	1		1	2	6		2			2		1	15	62.50
Mine cars,		2								1			3	12.50
Blasts, premature and otherwise,					1					1			2	8.34
Falling into shafts,			1										1	4.16
By falling,						1							1	4.17
Totals,	1	3	2	2	7	1	2	1		4		1	24	100.00
Causes of Accidents Outside														
Machinery,				1									1	100.00
Totals,				1									1	100.00
Grand totals inside and outside,	1	3	2	3	7	1	2	1		4		1	25	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1				1								2	8.00
Falls of roof,		1	1	1	1			3	2		3	1	13	52.00
Mine cars,						1			1				2	8.00
Blasts, premature and otherwise,						3		2		1			6	24.00
Mules,					1								1	4.00
By falling,				1									1	4.00
Totals,	1	1	1	2	3	4		5	3	1	3	1	25	100.00
Causes of Accidents Outside														
Cars,			1					1		1		2	5	45.46
Machinery,		1	1										2	18.18
Struck by timber,		1											1	9.09
By mules,			1										1	9.09
Scalded by steam,										2			2	18.18
Totals,		2	3					1		3		2	11	100.00
Grand totals inside and outside,	1	3	4	2	3	4		6	3	4	3	3	36	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	1	2	5	1	1	1	----	4	----	1	18
Miners' laborers,	----	1	1	----	2	----	1	----	----	----	----	----	5
Brakemen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	1	3	2	2	7	1	2	1	----	4	----	1	24
Outside													
Laborers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Totals,	----	----	----	1	----	----	----	----	----	----	----	----	1
Grand totals inside and outside,	1	3	2	3	7	1	2	1	----	4	----	1	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners' laborers,	----	----	----	1	2	1	----	2	1	----	----	----	7
Miners,	1	1	1	----	----	2	----	3	1	1	2	1	13
Drivers and runners,	----	----	----	1	1	----	----	----	----	----	----	----	2
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Company men,	----	----	----	----	----	----	----	----	1	----	----	----	1
Foot tenders,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	1	1	1	2	3	4	----	5	3	1	3	1	25
Outside													
Engineers and firemen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Laborers,	----	1	----	----	----	----	----	----	----	----	----	----	1
Rock dumpers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Machine helpers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Drivers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Loaders,	----	----	----	----	----	----	----	1	----	----	----	1	2
Coal-inspectors,	----	----	----	----	----	----	----	----	----	1	----	----	1
Banksmen,	----	----	----	----	----	----	----	----	----	2	----	----	2
Prop-cutters,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	2	3	----	----	----	----	1	----	3	----	2	11
Grand totals inside and outside,	1	3	4	2	3	4	----	6	3	4	3	3	36

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		1		1	1					1			4
English,					1								1
Welsh,							1			1			2
Irish,										1		1	2
Polish,		1	2	1			1						5
Italian,					2	1		1					4
Slavonian,	1	1											2
Lithuanian,					3								3
Russian,										1			1
Hebrew,				1									1
Totals,	1	3	2	3	7	1	2	1		4		1	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		2		2	1					1	1		7
English,		1						1					2
Welsh,						1		2	1		1		5
Irish,											1		1
Polish,	1		2			2		2		1		1	9
Italian,			2						2	2			6
Slavonian,												1	1
Lithuanian,					1	1							2
Austrian,					1								1
Russian,								1				1	2
Totals,	1	3	4	2	3	4		6	3	4	3	3	36

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal Co.																
Old Forge Colliery:																
No. 1 shaft,	Shaft,	Gaseous,	Fan,	20	6.5	5.25	52	.9	Guibal,	Steam,		5	65,200	59,400	67,400	120
No. 1 slope,	Slope,	Gaseous,	Fan,	17	4.5	4.5	60	.5	Guibal,	Steam,		3	52,000	46,600	53,000	100
No. 2 shaft,	Shaft,	Non-gas.,	Fan,	20	6.5	5.4	75	.9	Guibal,	Electricity,		5	87,345	78,675	99,955	273
Mountain tunnel, (Marcy vein),	Drift,	Non-gas.,	Fan,	20	6.5	5.4	60	1.0	Guibal,	Electricity,		6	72,950	63,990	80,980	290
Mountain tunnel, (Clark vein),												4	70,265	61,925	77,000	281
Central Colliery:																
Laws shaft,	Shaft,	Gaseous,	Fan,	20	6.5	5.45	50	.5	Guibal,	Steam,		6	90,110	71,840	116,260	424
Laws slope,	Slope,	Non-gas.,														
No. 13 shaft,	Shaft,	Gaseous,	Fan,	20	6.5	5.5	60	.6	Guibal,	Steam,		2	54,500	47,500	103,500	83
Delaware, Lackawanna and Western Railroad Co.																
Pyne Colliery:																
Pyne shaft,	Shaft,	Gaseous,	Fan,	16	5.0	4.5	60	1.2	Guibal,	Steam,		12	243,455	211,345	251,458	624
Pyne slope,	Slope,	Gaseous,	Fan,	24	8.0	6.0	72	1.8								
Taylor Colliery:																
Taylor shaft,	Shaft,	Gaseous,	Fan,	25	8.0	6.0	60	1.1	Guibal,	Steam,		9	295,460	144,970	346,380	595
Taylor slope,	Slope,	Gaseous,	Fan,*	12	3.5	3.0										

*Emergency fan,

Halstead Colliery:																	
Halstead shaft,	Shaft,	Gaseous,	2 Fans,	18	4.0	6.25	112	1.8	Guibal,	Steam,		9	133,190	117,957	141,340	376
				12	3.5	3.0	50	.5								
Halstead drift,	Drift,	Non-gas.,	Fan,	12	3.5	4.5	44	.4	Guibal,	Steam,		1	13,100	11,700	18,100	22
Jermyn and Co.																	
Jermyn Colliery:																	
Jermyn No. 1 shaft,	Shaft,	Gaseous,	Fan,	14	4.5	4.0	90	1.1	Guibal,	Steam,		6	93,740	†	104,500		
Jermyn No. 1 slope,	Slope,	Gaseous,															
Jermyn No. 2 shaft,	Shaft,	Gaseous,	Fan,	18	4.5	4.0	60	1.0	Guibal,	Steam,		4	46,320	39,500	54,350		
Jermyn No. 2 slope,	Slope,	Non-gas.,	Furnace,								32	1	15,400	13,680	17,490	822	
Jermyn No. 3 shaft,	Shaft,	Gaseous,	Fan,	18	4.5	4.0	50	.8	Guibal,	Steam,		4	42,250	†	57,325		
Jermyn No. 3 slope,	Slope,	Non-gas.,	Natural,									1	7,500	5,750	8,600		
Watkins drift, (Marcy vein),	Drift,	Non-gas.,	Furnace,								20	1	8,500	6,250	10,100		
Watkins drift, (Clark vein),	Drift,	Non-gas.,	Furnace,								20	1	12,560	8,300	14,200		
Hillside Coal and Iron Co.																	
Consolidated Colliery:																	
Consolidated slope,	Slope,	Non-gas.,	Fan,	14	4.0	4.0	82	.6	Guibal,	Steam,		4	51,300	46,800	58,320	216	
Consolidated drift,	Drift,	Non-gas.,	Natural,									2	24,100	21,250	30,460	98	
Elliott McClure and Co.																	
Sibley Colliery:																	
Sibley,	Shaft,	Non-gas.,	Fan,	20	6.0	5.0	70	1.5	Guibal,	Steam,		8	124,350	121,200	127,820	530	
Hudson Coal Co.																	
Langcliffe Colliery:																	
Langcliffe shaft,	Shaft,	Non-gas.,	Fan,	17	5.0	6.0	60	.2	Guibal,	Steam,		5	78,350	†	82,400	211	
Langcliffe slope,	Slope,	Non-gas.,	Natural,									1	15,400	13,220	16,800		
Spring Brook Colliery:																	
Spring Brook No. 1,	Slope,	Non-gas.,	Fan,	12	3.0	4.0	90	.5	Guibal,	Steam,		1	20,975	12,350	22,745		
Spring Brook No. 2,	Slope,	Non-gas.,	Fan,	15	4.5	4.6	120	.2	Guibal,	Steam,		2	41,660	26,845	44,235	82	
Spring Brook No. 3,	Slope,	Non-gas.,	Natural,									1	12,335	10,640	13,475		
Lehigh Valley Coal Co.																	
Austin Colliery:																	
Austin,	Drift,	Non-gas.,	Fan,	8	3	2	120	.3	Guibal,	Electricity,		1	30,000	27,500	32,000	37	
Moosic Coal Co.																	
Moosic Colliery:																	
Moosic,	Drift,	Non-gas.,	Natural,									1	6,000	5,650	6,120	17	

†Robbing.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal Co.						
Old Forge,	Lackawanna,	W. W. Inglis,	Dunmore,	J. P. Jennings,	Moosic	Erie
Central,	Luzerne,					
Delaware, Lackawanna and Western Railroad Co.						
Pyne,	Lackawanna,	R. A. Phillips,	Scranton,	T. J. Williams,	Scranton,	D. L. and W.
Pyne Washery,						
Taylor,	Lackawanna,	C. E. Tobey,		E. J. Evans,		
Halstead,	Luzerne,	C. E. Tobey,				
Jermyn and Co.						
Jermyn Nos. 1, 2, 3,	Lackawanna,	E. B. Jermyn,	Scranton,	J. P. Corcoran,	Old Forge,	Erie and D. L. and W.
Jermyn Washery,						
Hillside Coal and Iron Co.						
Consolidated,	Luzerne,	W. W. Inglis,	Dunmore,	J. P. Jennings,	Moosic,	Erie
Elliott McClure and Co.						
Sibley,	Lackawanna,	R. W. Reese,	Rendham,			D. L. and W. and Lehigh Valley
Hudson Coal Co.						
Langcliffe,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Spring Brook,	Lackawanna,					
Lehigh Valley Coal Co.						
Austin,	Lackawanna,	F. M. Chase,	Wilkes-Barre,	W. B. Owens,	Pittston,	Lehigh Valley
Moosic Coal Co.						
Moosic,*	Lackawanna,	William Cotter,	Moosic,			Erie

* New mine.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Pennsylvania Coal Co.													
Old Forge,	Lackawanna,	866,196	65,250	----------	931,446	300	1,493	2	4	853,925	----------	20,808	7
Central,	Luzerne,	438,439	28,309	6,167	472,915	299	849	3	----	329,925	----------	6,290	46
Totals,		1,304,635	93,559	6,167	1,404,361	----------	2,342	5	4	1,183,850	----------	27,098	53
Delaware, Lackawanna and Western Railroad Co.													
Pyne,	Lackawanna,	444,568	10,444	1,752	456,764	269	792	1	4	347,775	1,008	----------	68
Taylor,	Lackawanna,	391,268	8,297	7,863	407,428	248	747	4	4	422,500	7,054	----------	29
Halstead,	Luzerne,	145,546	24,599	2,202	172,347	240	520	2	2	232,000	4,942	----------	69
		981,382	43,340	11,817	1,036,539	----------	2,059	7	10	1,002,275	13,604	----------	166
Pyne Washery,	Lackawanna,	43,912	13,483	----------	57,395	214	27	----	----	----------	----------	----------	1
Totals,		1,025,294	56,823	11,817	1,093,934	----------	2,086	7	10	1,002,275	13,604	----------	167
Jermyn and Co.													
Jermyn Nos. 1, 2, 3,	Lackawanna,	406,593	----------	6,194	412,787	250	1,016	8	3	457,375	17,350	----------	81
Jermyn Washery,	Lackawanna,	170,355	40,085	3,440	213,880	265	44	----	----	----------	----------	----------	----
Totals,		576,948	40,085	9,634	626,667	----------	1,060	8	3	457,375	17,350	----------	81
Hillside Coal and Iron Co.													
Consolidated,	Luzerne,	320,508	16,660	5,103	342,271	261	548	1	6	179,625	----------	8,163	42

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Elliott McClure and Co.													
Sibley,	Lackawanna,	236,735	24,820	9,123	270,678	275	689	2	10	420,125	23,200	.....	50
Hudson Coal Co.													
Langcliffe,	Luzerne,	84,348	10,287	1,470	96,105	125	291	1	3	93,975	5,821	.....	54
Spring Brook,	Lackawanna,	44,576	10,697	678	55,951	103	127	1	....	64,050	794	.....	17
Totals,		128,924	20,984	2,148	152,056	.....	418	2	3	158,025	6,615	.....	71
Lehigh Valley Coal Co.													
Austin,*	Lackawanna,	16,300	2,222	.....	18,522	.....	46	....	....	15,400	550	.....	11
Moosic Coal Co.													
Moosic,	Lackawanna,	1,338	291	120	1,749	73	24	....	....	3,575	550	.....	2
Grand totals,		3,610,682	255,444	44,112	3,910,238	.....	7,213	25	36	3,420,250	61,869	35,261	477

*Coal prepared at William A. Colliery, Eighth District.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pennsylvania Coal Co.,	Lackawanna, Luzerne,	-------	-------	26	5,300	5,300	7	------	43	36	4,900	13	17,000	9,100	4	-------
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna, Luzerne,	8	160	24	4,325	4,485	1	------	20	69	4,068	8	10,220	5,100	4	-------
Jermyn and Co.,	Lackawanna,	2	500	4	2,000	2,500	------	------	------	25	1,950	2	10,000	7,000	-------	-------
Hillside Coal and Iron Co.,	Luzerne,	-------	-------	10	800	800	2	------	------	14	856	1	600	500,	-------	-------
Elliott McClure and Co.,	Lackawanna,	-------	-------	3	1,200	1,200	------	------	------	24	1,250	2	3,500	1,800	-------	1
Hudson Coal Co.,	Luzerne, Lackawanna,	-------	-------	12	1,485	1,465	2	------	------	35	1,196	6	4,200	1,800	-------	1
							1	------	------	1	15	1	500	400	-------	-------
Lehigh Valley Coal Co.,	Lackawanna,	-------	-------	-------	-------	-------	------	------	------	2	50	-------	-------	-------	-------	-------
Moosic Coal Co.,	Lackawanna,	1	60	-------	-------	60										
Totals,		11	720	79	15,110	15,830	13	------	63	206	14,288	33	46,020	25,700	8	2

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Pennsylvania Coal Co.,	Lackawanna, Luzerne,	4	12	----	620	533	44	37	12	202	165	1,629	1	2	49	40	155	60	5	401	713	2,342
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna, Luzerne,	4	2	13	582	567	110	24	15	58	265	1,640	------	4	17	46	110	28	9	232	446	2,086
Jermyn and Co.,	Lackawanna,	2	2	11	288	295	100	8	3	113	------	822	2	3	18	20	50	49	6	90	238	1,060
Hillside Coal and Iron Co.,	Luzerne,	2	3	----	110	99	36	2	1	8	53	314	------	1	29	17	30	3	1	153	234	548
Elliott McClure and Co.,	Lackawanna,	1	6	----	200	170	70	15	4	44	20	530	1	1	7	9	63	12	6	60	159	689
Hudson Coal Co.,	Luzerne, Lackawanna,	2	1	1	96	126	44	------	1	19	3	293	------	2	8	96	7	16	4	62	125	418
Lehigh Valley Coal Co.,	Lackawanna,	1	----	----	10	9	6	------	1	10	------	37	------	----	2	----	----	----	----	7	9	46
Moosic Coal Co.,	Lackawanna,	1	----	----	8	7	1	------	------	------	------	17	------	----	----	2	2	----	1	2	7	24
Totals,		17	26	25	1,914	1,806	411	86	37	454	506	5,282	4	13	130	160	417	168	32	1,007	1,931	7,213

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal Co.,	Lackawanna, Luzerne,	25	24	26	23	26	26	25	26	25	25	24	25	300
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna, Luzerne,	22	17	17	20	23	23	20	23	22	23	21	21	252
Jermyn and Co.,	Lackawanna,	21	21	23	15	21	22	22	23	21	21	20	20	250
Hillside Coal and Iron Co.,	Luzerne,	22	21	24	21	21	22	20	23	21	22	22	22	261
Elliott McClure and Co.,	Lackawanna,	22	23	26	21	23	23	22	24	24	24	22	21	275
Hudson Coal Co.,	Luzerne, Lackawanna,	10	9	10	9	9	9	10	9	10	9	10	10	114
Moosic Coal Co.,	Lackawanna,	------	------	------	------	------	------	------	7	6	11	25	24	73

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 19	Joseph Antol,	Slavonian,	Miner,	53	M.	1	1	Taylor,	Lackawanna,	Fatally injured by being struck by fall of "bell" roof 10 feet from face.
Feb. 6	John Shield,	American,	Motor brakeman,	21	S.			Pyne	Lackawanna	Right leg fractured and left leg cut by being run over by cars on gangway road. Sometime after the accident gangrene set in and he died February 6.
7	Charles Brady,	Polish,	Miner,	32	M.	1	2	Spring Brook,	Lackawanna,	Back broken by fall of slate at face. Died February 21.
28	Steve Olosky,	Slavonian,	Laborer,	17	S.			Halstead,	Luzerne,	Killed by trip of cars while wandering along gangway road.
Mar. 16	John Waskel,	Polish,	Laborer,	25	S.			Langcliffe,	Luzerne,	Killed by falling down shaft. While ascending shaft on cage, he became dizzy and fell off the cage.
20	Alec Banosky,	Polish,	Miner,	27	M.	1		Old Forge,	Lackawanna,	Killed by fall of roof at face of pillar.
April 1	Joe Friedman,	Hebrew,	Laborer,	42	M.	1	6	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by a conveyor line falling on him under breaker. Outside.
3	William Goponski,	Polish,	Miner,	29	S.			Consolidated,	Luzerne,	Killed by fall of roof at face of pillar.
17	Fred Owens,	American,	Miner,	27	M.	1	1	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face.
May 3	Thomas Walsh,	American,	Miner,	38	M.	1	2	Central,	Luzerne,	Killed by fall of roof at face of chamber.
	Charles Notari,	Italian,	Laborer,	23	S.					
10	Rose Scavie,	Italian,	Miner,	41	M.	1	4	Old Forge,	Lackawanna,	Killed by fall of roof at end of pillar.
12	Anthony Orloczeniski,	Lithuanian,	Miner,	26	M.	1		Halstead,	Luzerne,	Killed by blast. He placed gas squib in hole, lighted it and retired to crosscut. After waiting about fifteen minutes he returned and as he reached the face the blast exploded.
26	Adam Shamonic,	Lithuanian,	Miner,	38	M.	1		Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face of pillar.
	Alec. Jacobovitch,	Lithuanian,	Laborer,	30	S.					

May	29	Edward Prieste,	English,	Miner,	43	M.	1	4	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face, while robbing pillars.
June	22	James Selorno,	Italian,	Miner,	50	M.	1	4	Jermyn Nos. 1, 2, 3,	Lackawanna,	Fatally injured by being thrown on top beam of car. He placed a mining rail from rib to top of car to be used as a scaffold while drilling hole in top coal at face of chamber. The rail slipped and threw him on top beam of car.
July	19	John Guskuskie,	Polish,	Miner,	44	M.	1	3	Central,	Luzerne,	Killed by fall of roof at face while robbing pillars.
	25	Thomas Johns,	Welsh,	Laborer,	38	S.			Taylor,	Lackawanna,	Killed by fall of roof 18 feet from face of chamber.
Aug.	1	Nicholas Credell,	Italian,	Miner,	23	M.	1		Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of top coal at end of pillar while robbing same.
Oct.	17	William T. Williams,	Welsh,	Miner,	48	M.	1		Sibley,	Lackawanna,	Fatally burned about head, shoulders, breast, hands and arms, while charging a hole. Cartridge stuck in hole and he rammed powder back with scraper causing explosion.
	24	Waddick Keyslutsky,	Russian,	Miner,	46	M.	1	6	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face.
		David Perry,	American,	Miner,	28	S.			Taylor,	Lackawanna,	Killed by being squeezed between car and rib on rock road.
	27	Thomas Griffin,	Irish,	Miner,	27	M.	1	1	Sibley,	Lackawanna,	Killed by fall of roof at face of pillar while restanding a prop.
Dec.	1	Thomas Hession,	Irish,	Miner,	56	M.	1		Taylor,	Lackawanna,	Killed by fall of roof at face of chamber.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 20	John Dusho,	Polish,	Miner,	30	M.	Jermyn Nos. 1, 2, 3,	Lackawanna,	Shoulder dislocated by fall of top coal at face.
Feb. 7	William Green,	American,	Laborer,	30	S.	Langcliffe,	Luzerne,	Leg broken by being caught between timber and railroad tracks. Outside.
11	Robert Seamans,	English,	Miner,	65	M.	Old Forge,	Lackawanna,	Two ribs broken by fall of roof at face.
27	Harry Gillispie,	American,	Fireman,	34	M.	Old Forge,	Lackawanna,	Ulna fractured and arm lacerated by putting arm between disk and bed plate of engine before engine came to a stop. Outside.
Mar. 5	Joseph Peions,	Italian,	Rock dumper,	42	S.	Consolidated,	Luzerne,	Two ribs broken and back and legs scratched. He was thrown off mule's back, his foot caught in traces and he was dragged. Outside.
23	Frank Morandi,	Italian,	Machine helper,	15	S.	Jermyn Nos. 1, 2, 3,	Lackawanna,	Right arm torn off. While working on drill press in machine shop his clothing was caught. Outside.
	Notzi Kochinsky,	Polish,	Miner,	29	M.	Jermyn Nos. 1, 2, 3,	Lackawanna,	Leg broken and hand crushed by fall of roof at face.
24	Stanley Melisky,	Polish,	Driver,	15	S.	Sibley,	Lackawanna,	Foot crushed by being caught between bumpers of two cars. Outside.
April 18	David Parry,	American,	Laborer,	27	S.	Taylor,	Lackawanna,	Hip injured and head cut by fall of roof at face.
21	Leo Breymier,	American,	Runner,	18	M.	Halstead,	Luzerne,	Collar bone broken. He was running car out of chamber and missed the sprag. He ran after the car, fell and struck his shoulder against prop.
May 10	Andrew Techanovitch,	Lithuanian,	Laborer,	30	M.	Pyne,	Lackawanna,	Head and neck lacerated and ribs broken by fall of roof at face.
20	Sam Beesic,	Austrian,	Laborer,	24	S.	Old Forge,	Lackawanna,	Compound fracture of both legs by fall of top coal at face.

May	29	William Edwards,	American,	Driver,	20	S.	Consolidated,	Luzerne,	Skull fractured. Kicked by mule on gangway road.
June	7	John Price,	Welsh,	Foot-tender,	43	S.	Consolidated,	Luzerne,	Injured by being caught between empty and loaded cars on branch at foot of slope.
	19	Andrew Povlukounes,	Lithuanian,	Miner,	47	M.	Halstead,	Luzerne,	Back and side injured by premature blast at face.
	24	Peter Sweagan,	Polish,	Miner,	43	M.	Sibley,	Lackawanna,	Eyes injured by premature blast at face.
		Michael Zupko,	Polish,	Laborer,	23	S.			Skull slightly fractured.
Aug.	4	Mike Keshpin,	Russian,	Loader,	27	S.	Pyne,	Lackawanna,	Contusion of right hip and thigh, by being caught between car and steps leading to loaders' platform under breaker. Outside.
	19	Stanley Yopchunko,	Polish,	Laborer,	22	M.	Langcliffe,	Luzerne,	Left leg fractured by fall of roof at face.
		William Owens,	Welsh,	Miner,	47	M.	Langcliffe,	Luzerne,	Compound fracture of left leg and arm, also contusions on side and scalp wounds by fall of roof at face.
	22	Thomas Wylam,	English,	Miner,	47	M.	Sibley,	Lackawanna,	Body cut, bruised and burned by premature blast at face of chamber.
		Evan Davis,	Welsh,	Laborer,	20	S.			
	24	John Sipinski,	Polish,	Miner,	22	M.	Old Forge,	Lackawanna,	Left leg fractured, right ankle dislocated, and contusions on right hand and left leg by fall of roof at face.
Sept.	5	Regnaldo Mattcolo,	Italian,	Miner,	42	M.	Sibley,	Lackawanna,	Compound fracture of arm and scalp cut by fall of roof at face.
		Bolonga Constantine,	Italian,	Laborer,	28	S.	Sibley,	Lackawanna,	Scalp slightly wounded by fall of roof at face of chamber.
	28	David B. Davis,	Welsh,	Company man,	39	M.	Pyne,	Lackawanna,	Hip broken by being caught between car and roof while riding on front end of car on gangway.
Oct.	18	Edward Collins,	American,	Coal inspector,	45	M.	Taylor,	Lackawanna,	Left arm broken and body squeezed by being struck by car while riding from breaker to office. Outside.
	9	Dominick Bruno,	Italian,	Miner,	26	M.	Sibley,	Lackawanna,	Head cut and bruised by a delayed blast at face of chamber.
	31	John Bedock,	Polish,	Bankman,	42	S.	Consolidated,	Luzerne,	Face, arms and legs burned by an explosion caused by water coming in contact with burning culm. Outside.
		Alex Summondosky,	Italian,	Bankman,	36	S.			Face, legs and lower part of body burned by above explosion.
Nov.	5	John Reap,	American,	Miner,	42	S.	Consolidated,	Luzerne,	Left leg broken by fall of roof at face of pillar while robbing it.
	22	Joe Reese,	Welsh,	Helper,	29	M.	Taylor,	Lackawanna,	Compound fracture of right leg by fall of roof at face.
	29	John Flynn,	Irish,	Miner,	45	M.	Taylor,	Lackawanna,	Back badly injured by fall of roof at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 4	Mike Fenik,	Slavonian,	Loader,	25	S.	Pyne,	Lackawanna,	Head injured and compound fracture of right arm by being knocked off a car. Outside.
	Peter Brobosky,	Polish,	Miner,	40	M.	Sibley,	Lackawanna,	Legs broken by fall of roof at face of chamber.
7	William Kisselisky,	Russian,	Prop-cutter,	41	M.	Sibley,	Lackawanna,	Arm broken by being struck by mine car that slipped off guide. The mine car was being unloaded from big car. Outside.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Old Forge.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars to some extent.

Central.—Ventilation, drainage and general condition, good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pyne.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars.

Taylor.—Ventilation, drainage and condition as to safety, good.

Halstead.—Ventilation, drainage and general condition as to safety, fair.

JERMYN AND COMPANY

Jermyn Nos. 1, 2 and 3.—Ventilation and drainage good; condition as to safety, fair. Robbing pillars extensively.

HILLSIDE COAL AND IRON COMPANY

Consolidated.—Ventilation, drainage and condition as to safety, good. Pillars are being robbed.

ELLIOTT McCLURE AND COMPANY

Sibley.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Langcliffe.—Ventilation, drainage and general condition as to safety, good. Mining pillars.

Spring Brook.—Ventilation, drainage and general condition as to safety, good. Robbing pillars.

LEHIGH VALLEY COAL COMPANY

Austin.—Ventilation, drainage and general condition as to safety, fair. Robbing pillars almost exclusively.

MOOSIC COAL COMPANY

Moosic.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Old Forge Colliery.—Started work on the opening to the Clark and Marcy veins on the E. A. Corey tract. An air shaft 12 feet by 12 feet has been sunk 125 feet in depth. A slope 7 feet by 12 feet in the clear, 450 feet in length, on a pitch of 15 degrees, is being sunk to the Clark vein and also cuts the Marcy.

Central Colliery.—A new brick stable was built to accommodate all the mules. The inside barns have been abandoned and torn out.

JERMYN AND COMPANY

Jermyn Nos. 1, 2, 3 Colliery:

No. 1.—Barn on inside torn out and mules taken to outside barn. A new slope driven from outside to Marcy vein. An electric plant was built for the purpose of lighting inside and outside.

No. 2.—A new concrete barn was built to take the place of wooden structure. Also tail rope engine house made of concrete.

HILLSIDE COAL AND IRON COMPANY

Consolidated Colliery.—A new opening was made to the Red Ash vein from the outcrop, which affords a second opening directly to that vein.

MOOSIC COAL COMPANY

Moosic Colliery.—A new breaker, 30 feet by 48 feet by 52 feet high, was built and necessary machinery placed therein for the preparation of coal.

SIXTH DISTRICT

LUZERNE COUNTY

Pittston, Pa., February 24, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Sixth Anthracite District, for the year ending December 31, 1911. The report contains the usual tables and statistics, with a brief description of the most important improvements made at the collieries, and also a brief description of fatal accidents.

Respectfully submitted,
H. McDONALD, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	13
Number of mines,	39
Number of mines in operation,	37
Number of tons of coal shipped to market,	4,544,417
Number of tons used at mines for steam and heat,	479,533
Number of tons sold to local trade and used by employes,	40,732
Number of tons produced,	5,064,682
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	8,335
Number of persons employed outside,	2,703
Number of fatal accidents inside of mines,	36
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	63
Number of non-fatal accidents outside,	6
Number of tons of coal produced per fatal accident inside,	140,685
Number of persons employed per fatal accident inside,	231
Number of persons employed per fatal accident outside,	901
Number of persons employed per non-fatal accident inside,	132
Number of persons employed per non-fatal accident outside,	450
Number of wives made widows,	22
Number of children made orphans,	44
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	25
Number of compressed air locomotives used inside,	13
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	54
Number of electric motors used outside,	.....
Number of fans in use,	40
Number of furnaces in use,	.....
Number of gaseous mines in operation,	18
Number of non-gaseous mines in operation,	19
Number of new mines opened,	2
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal Company,	3,044,567
Hudson Coal Company,	658,860
Hillside Coal and Iron Company,	628,314
Lehigh Valley Coal Company,	519,449
Delaware and Hudson Company,	182,181
Yost Mining Company,	28,484
McCauley Coal Company,	2,827
Total,	5,064,682

Production by Counties

Luzerne,	5,064,682

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal Co.,	27	1	28	28	4	32	112,761	108,734	4,935	1,693	6,628	182	1,693	176	423
Hudson Coal Co.,	2	1	3	27	-------	27	329,430	24,402	1,254	312	1,566	627	312	46	-------
Hillside Coal and Iron Co.,	4	-------	4	4	-------	4	157,078	157,078	1,076	295	1,371	269	-------	269	-------
Lehigh Valley Coal Co.,	3	-------	3	1	-------	1	173,149	519,449	632	233	865	210	-------	632	-------
Delaware and Hudson Co.,	-------	1	1	3	2	5	-------	60,727	361	117	478	-------	117	120	58
Miscellaneous Companies,	-------	-------	-------	-------	-------	-------	-------	-------	77	53	130	-------	-------	-------	-------
Totals and averages for district,	36	3	39	63	6	69	140,685	80,391	8,335	2,703	11,038	231	901	132	450

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,								2					2	5.56
Falls of roof,			3			2	1		3	1		1	11	30.55
Mine cars,		1									2		3	8.33
Explosions of gas,	2		1			2							5	13.89
Suffocation by gas, etc.,	1												1	2.78
Explosions of powder and dynamite,	3					1							4	11.11
Blasts, premature and otherwise,		1					1	1	2	1		1	7	19.44
Falling into shafts,												1	1	2.78
Machinery,		1											1	2.78
Struck by timber,	1												1	2.78
Totals,	7	3	4			5	2	3	5	2	2	3	36	100.00
Causes of Accidents Outside														
Machinery,		1									1	1	3	100.00
Totals,		1									1	1	3	100.00
Grand totals inside and outside,	7	4	4			5	2	3	5	2	3	4	39	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,				1	1			1		3			6	9.52
Falls of roof,		1		1		1	3	2		2	3	2	15	23.81
Mine cars,	2				6	2	2	2	1		1	1	17	26.98
Explosions of gas,	1			1			3					1	6	9.52
Explosions of powder and dynamite,	4												4	6.35
Blasts, premature and otherwise,				1	1	1		1	1	1		2	8	12.70
Mules,			1				1						2	3.18
Machinery,				1	1								2	3.18
By falling,			1					1	1				3	4.76
Totals,	7	1	2	5	9	4	9	7	3	6	4	6	63	100.00
Causes of Accidents Outside														
Cars,	1	1											2	33.33
By falling,		1		1		1						1	4	66.67
Totals,	1	2		1		1						1	6	100.00
Grand totals inside and outside,	8	3	2	6	9	5	9	7	3	6	4	7	69	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	3	----	----	3	2	2	2	----	----	2	16
Miners' laborers,	4	----	1	----	----	----	----	1	3	2	----	1	12
Drivers and runners,	----	----	----	----	----	1	----	----	----	----	1	----	2
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Company men,	2	1	----	----	----	----	----	----	----	----	----	----	3
Roadmen,	----	1	----	----	----	1	----	----	----	----	----	----	2
Totals,	7	3	4	----	----	5	2	3	5	2	2	3	36
Outside													
Blacksmiths and carpenters,	----	1	----	----	----	----	----	----	----	----	----	----	1
Electricians,	----	----	----	----	----	----	----	----	----	----	1	----	1
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	1	----	----	----	----	----	----	----	----	1	1	3
Grand totals inside and outside,	7	4	4	----	----	5	2	3	5	2	3	4	39

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	----	2	3	2	3	6	1	4	2	2	27
Miners' laborers,	4	----	----	3	1	----	4	----	2	1	2	3	20
Drivers and runners,	2	----	2	----	4	2	1	1	----	----	----	1	13
Company men,	----	----	----	----	----	----	----	----	----	1	----	----	1
Roadmen,	----	----	----	----	1	----	1	----	----	----	----	----	2
Totals,	7	1	2	5	9	4	9	7	3	6	4	6	63
Outside													
Blacksmiths and carpenters,	----	----	----	1	----	----	----	----	----	----	----	----	1
Slatepickers (boys),	----	----	----	----	----	1	----	----	----	----	----	----	1
Machinists,	----	1	----	----	----	----	----	----	----	----	----	----	1
Headmen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Laborers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Loaders,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	1	2	----	1	----	1	----	----	----	----	----	1	6
Grand totals inside and outside,	8	3	2	6	9	5	9	7	3	6	4	7	69

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	2	1	----	----	1	----	----	----	----	1	1	6
Irish,	3	1	----	----	----	2	----	1	----	----	----	----	7
German,	----	----	----	----	----	----	----	----	----	----	1	----	1
Polish,	1	----	3	----	----	1	1	----	3	1	----	2	12
Italian,	----	----	----	----	----	1	----	----	----	1	----	1	3
Slavonian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Lithuanian,	2	----	----	----	----	----	----	1	2	----	----	----	5
Austrian,	----	----	----	----	----	----	1	----	----	----	----	----	1
Russian,	1	1	----	----	----	----	----	1	----	----	----	----	3
Totals,	7	4	4	----	----	5	2	3	5	2	3	4	39

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	2	1	3	1	1	1	----	----	----	1	13
English,	----	----	----	1	----	----	----	----	----	----	----	----	1
Welsh,	----	----	----	----	1	----	----	----	----	----	----	----	1
Irish,	----	1	----	----	----	----	----	1	----	1	----	----	3
German,	1	----	----	----	----	----	----	----	----	----	----	----	1
Polish,	1	----	----	2	1	2	5	3	2	3	1	2	22
Italian,	2	----	----	1	1	1	----	1	----	1	1	2	10
Slavonian,	----	----	----	----	1	----	----	----	1	1	----	----	3
Lithuanian,	1	----	----	----	----	----	2	----	----	----	1	2	6
Austrian,	----	----	----	----	----	1	----	----	----	----	----	----	1
Russian,	2	----	----	1	1	----	----	----	----	----	1	----	5
French,	----	----	----	----	----	----	----	1	----	----	----	----	1
Bohemian,	----	----	----	----	1	----	1	----	----	----	----	----	2
Totals,	8	3	2	6	9	5	9	7	3	6	4	7	69

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal Co.																
Barnum Colliery:																
Barnum No. 2,	Shaft,	Gaseous,	2 Fans,	17.	5.2	4.7	75	.7	Guibal,	Steam,		5	63,000	59,150	67,550	291
				20.	6.5	5.3	60	1.								
Barnum No. 3,	Shaft,	Gaseous,	Fan,	17	5.	5.	67	.3	Guibal,	Steam,		3	58,000	52,800	60,500	200
Number 9 Colliery:																
Number 1,	Shaft,	Gaseous,	Fan,	20.	6.5	5.3	55	.8	Guibal,	Steam,		5	84,695	62,055	100,455	201
Number 8,				20.	6.5	5.3	60	.8				5	85,610	51,615	102,550	230
Number 9,				20.	6.5	5.3	61	1.5				2	57,000	47,250	64,550	105
Number 10,				20.	6.5	5.3	60	1.4				5	105,600	85,000	122,000	255
Leadville,				20.	6.5	5.3	64	2.				3	59,100	48,210	70,200	113
Ewen Colliery:																
Hoyt,	Shaft,	Gaseous,	Fan,	20.	6.5	5.3	70	1.	Guibal,	Steam,		7	134,460	119,880	158,530	330
Number 7,			Fan,	20.	6.5	5.3	61	1.				6	86,460	80,730	91,780	310
Number 4,			2 Fans,	20.	6.5	5.3	65	1.5				7	90,070	75,555	107,750	337
Number 6 Colliery:																
Number 5,	Shaft,	Gaseous,	Fan,	20.	6.5	5.3	65	1.1	Guibal,	Steam,		5	78,480	75,600	79,100	219
Number 6,	Shaft,	Gaseous,	Fan,	20.	6.5	5.3	68	1.				9	103,430	93,350	110,400	365
Number 6 Diamond,	Slope,	Non-gas.,	Fan,	12.	4.	3.	52	.5				2	14,684	11,593	16,540	47
Number 11,	Shaft,	Gaseous,	Fan,	20.	6.5	5.3	60	1.5				4	69,200	65,300	72,200	193

Number 14 Colliery:																
Number 14,	Shaft,	Gaseous,	3 Fans,	20.	6.5	5.3	70	1.	Guibal,	Steam,	11	207,300	140,575	238,475	669
Number 14,	Slope,	Non-gas.,	Fan,	17.	5.	4.	70	.8			4	43,860	37,070	46,635	120
Number 14,	Tunnel,	Non-gas.,	Fan,	17.	5.	4.	70	.8			2	48,215	40,100	50,210	133
Courtright,	Slope,	Non-gas.,	Fan,	20.	6.5	5.3	65	.8			4	87,735	74,140	97,235	253
Chapman,	Slope,	Non-gas.,	Natural,								1	10,150	6,000	11,480	14
Hudson Coal Co.															
Pine Ridge Colliery:															
Pine Ridge,	Shaft,	Gaseous,	2 Fans,	28	8	7.3	58	2.1	Guibal,	Steam,	15	339,310	203,530	452,440	816
Laflin Colliery:															
Laflin,	Shaft,	Non-gas.,	Fan,	20	5	5	75	1.3	Guibal,	Steam,	9	143,945	127,022	163,200	372
Laflin,	Tunnel,	Non-gas.,	Fan,	14	4	3.6	85	.5	Guibal,	Steam,	1	34,690	27,020	38,190	66
Hillside Coal and Iron Co.															
Butler Colliery:															
Butler Marcy,	Slope,	Non-gas.,	Fan,	20	6.5	5.3	80	1.6	Guibal,	Steam,	3	62,500	37,800	69,800	152
Butler Checker,	Slope,	Non-gas.,	Fan,	10	4.6	2.8	110	.6	Guibal,	Electricity,	3	63,000	43,400	67,800	140
Thomas,	Shaft,	Non-gas.,	2 Fans,	15	4	4	100	1.2	Guibal,	Steam,	8	191,600	178,400	208,200	369
				16	4.3	4	100	1.2	Guibal,	Electricity,					
Fernwood,	Slope,	Non-gas.,	Fan,	20	6.5	5.3	54	.9	Guibal,	Electricity,	4	81,300	56,700	86,400	227
Clarence,	Slope,	Non-gas.,	Natural,								2	27,700	25,300	29,600	124
Lehigh Valley Coal Co.															
Heidelburg No. 1 Colliery:															
Heidelburg No. 1,	Slope,	Non-gas.,	Fan,	16	4	2.5	80	.6	Guibal,	Steam,	2	53,574	43,580	55,854	103
Heidelburg Marcy,	Slope,	Non-gas.,	Fan,	10	4	4	144	.8			2	42,804	31,800	52,114	74
Heidelburg,	Shaft,	Non-gas.,	Fan,	20	5.8	5	60	.4			2	40,900	37,590	42,100	84
Heidelburg,	Tunnel,	Non-gas.,	Natural,								1	16,500	14,570	16,915	46
Mineral Spring Colliery:															
Mineral Spring,	Shaft,	Gaseous,	Fan,	20	6.6	5.6	60	.9	Guibal,	Steam,	4	76,700	48,000	82,400	223
Mineral Spring,	Slope,	Gaseous,	Fan,	12	4	3.6	100	.7			1	24,200	13,700	26,300	59
Coal Brook,	Tunnel,	Non-gas.,	Fan,	20	6.6	5.6	60	.9			1	17,600	10,100	19,700	43
Delaware and Hudson Co.															
Delaware Colliery:															
Delaware,	Shaft,	Gaseous,	2 Fans,	22.5	6.6	5.6	70	1.8	Guibal,	Steam,	10	147,650	106,310	167,340	361
Yost Mining Co.															
Yost Colliery:															
Yost,	Slope,	Non-gas.,	Fan,	4	1.10	1.	320	.3		Electricity,	2	16,200	10,000	17,200	47
McCauley Coal Co.															
Pickaway Colliery:															
Pickaway,	Tunnel,	Non-gas.,	Natural,								1	6,590	4,600	7,610	22

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal Co. Barnum, Number 9, Ewen, Number 6, Number 14,	Luzerne,	W. A. May, General Manager. W. W. Inglis, General Supt.	Scranton,	Henry T. McMillan, Henry T. McMillan, Wm. P. Jennings, Wm. P. Jennings, John W. Reid,	Pittston, Pittston, Pittston, Pittston, Plainsville,	Erie
Hudson Coal Co. Pine Ridge, Laflin,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Hillside Coal and Iron Co. Butler,	Luzerne,	W. A. May, General Manager. W. W. Inglis, General Supt.	Scranton,	Wm. P. Jennings,	Pittston,	Erie
Lehigh Valley Coal Co. Heidelburg No. 1, Mineral Spring,	Luzerne,	F. M. Chase,	Wilkes-Barre,	W. D. Owens, Thomas Thomas,	Pittston, Wilkes-Barre,	Lehigh Valley
Delaware and Hudson Co. Delaware,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	D. and H.
Yost Mining Co. Yost,	Luzerne,	H. E. Rissinger,	Pittston,			Erie
McCauley Coal Co. Pickaway,	Luzerne,	William McCauley,	Pittston,			Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Pennsylvania Coal Co.													
Barnum,	Luzerne,	340,308	23,860	2,563	366,731	247	608	4	2	280,575	.....	5,525	65
Number 9,		713,705	79,643	6,821	800,169	296	1,592	9	14	527,100	.....	13,017	129
Ewen,		505,579	53,643	.....	559,222	269	1,352	6	3	490,725	.....	15,612	142
Number 6,		498,724	37,428	9,138	545,290	293	1,386	6	6	580,500	.....	36,412	129
Number 14,		712,567	58,443	2,145	773,155	289	1,600	3	7	765,775	1,350	28,916	193
Totals,		2,770,883	253,017	20,667	3,044,567	.....	6,628	28	32	2,644,675	1,350	99,482	658
Hudson Coal Co.													
Pine Ridge,	Luzerne,	399,778	63,798	3,957	467,533	244	1,013	2	18	509,025	21,429	1,888	80
Laflin,		168,490	21,925	912	191,327	202	553	1	9	313,025	45,550	2,150	69
Totals,		568,268	85,723	4,869	658,860	.....	1,566	3	27	822,050	66,979	4,038	149
Hillside Coal and Iron Co.													
Butler,	Luzerne,	568,205	54,030	6,079	628,314	296	1,371	4	4	603,925	14,300	39,650	91
Lehigh Valley Coal Co.													
Heidelburg No. 1,	Luzerne,	243,498	32,395	1,793	277,686	252	444	....	....	211,675	34,431	.....	95
Mineral Spring,		219,015	20,501	2,247	241,763	171	421	3	1	156,050	116,790	.....	66
Totals,		462,513	52,896	4,040	519,449	.....	865	3	1	367,725	151,221	.....	161

TABLE 2--Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Delaware and Hudson Co.													
Delaware,	Luzerne,	145,119	32,907	4,155	182,181	213	478	1	5	180,025	3,876	3,275	55
Yost Mining Co.													
Yost,	Luzerne,	27,532	50	902	28,484	210	100	----	----	24,825	600	----------	8
McCauley Coal Co.													
Pickaway,	Luzerne,	1,897	910	20	2,827	91	30	----	----	3,250	----------	----------	5
Grand totals,		4,544,417	479,533	40,732	5,064,682	--------	11,038	39	69	4,646,475	238,326	146,445	1,127

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pennsylvania Coal Co.,	Luzerne,	----	----	80	14,845	14,845	13	13	21	215	13,449	23	29,103	14,810	6	19
Hudson Coal Co.,		----	----	24	5,140	5,140	2	----	8	99	4,600	6	8,200	4,300	2	4
Hillside Coal and Iron Co.,		----	----	31	3,280	3,280	8	----	23	25	3,100	6	4,000	2,200	5	----
Lehigh Valley Coal Co.,		4	1,000	14	1,800	2,800	2	----	----	45	5,300	8	6,197	4,977	----	----
Delaware and Hudson Co.,		----	----	7	1,225	1,225	----	----	2	28	672	3	5,200	1,900	1	2
Yost Mining Co.,		----	----	----	----	----	----	----	----	----	----	2	900	500	----	----
McCauley Coal Co.,		----	----	1	80	80	----	----	----	1	75	----	----	----	----	----
Totals,	----	4	1,000	157	26,370	27,370	25	13	54	413	27,196	48	53,600	28,687	14	25

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Pennsylvania Coal Co.,	Luzerne,	15	48	13	1,579	1,526	668	62	31	386	607	4,935	3	5	131	128	252	167	18	989	1,693	6,628
Hudson Coal Co.,		2	4	10	491	459	136	1	10	118	23	1,254	----	3	18	64	20	37	5	165	312	1,566
Hillside Coal and Iron Co.,		4	9	----	395	350	54	15	11	99	139	1,076	----	1	25	31	68	18	2	150	295	1,371
Lehigh Valley Coal Co.,		4	7	----	287	105	109	7	9	51	53	632	----	3	22	34	----	18	6	150	233	865
Delaware and Hudson Co.,		1	1	3	95	154	56	4	3	40	4	361	----	1	6	26	15	2	2	65	117	478
Yost Mining Co.,		1	----	----	21	20	8	1	1	3	------	55	1	1	2	1	24	----	1	15	45	100
McCauley Coal Co.,		1	----	----	9	9	2	------	------	1	------	22	1	----	1	2	3	----	----	1	8	30
Totals,		28	69	26	2,877	2,623	1,033	90	65	698	826	8,335	5	14	205	286	382	242	34	1,535	2,703	11,038

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal Co.,	Luzerne,	24	23	25	21	24	24	24	23	22	23	23	23	279
Hudson Coal Co.,		18	18	20	17	19	18	18	20	18	19	19	19	223
Hillside Coal and Iron Co.,		25	24	27	23	25	26	25	26	25	23	23	24	296
Lehigh Valley Coal Co.,		12	9	11	17	22	23	16	18	20	22	22	20	212
Delaware and Hudson Co.,		17	16	21	19	19	15	14	17	17	18	20	20	213
Yost Mining Co.,		14	23	23	19	22	22	16	17	14	15	13	12	210
McCauley Coal Co.,									10	20	19	21	21	91

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Mathew Daily,	Irish,	Company man	47	M.	1	....	Ewen,	Luzerne,	Suffocated by after-damp on gangway road from an explosion of gas.
	Frank Leish,	Russian,	Laborer,	21	S.	....	....	Ewen,		Fatally burned at face of heading by the above explosion. Died January 12.
	Patrick Bulger,	Irish,	Company man	64	M.	1	....	Ewen,		Fatally injured on gangway road by the concussion of above explosion. Died January 25.
20	Charles Whitcomb,	Lithuanian,	Laborer,	40	M.	1	....	Number 14,		Killed by a prop knocked out by fall of top coal at face of breast.
25	Michael Roach,	Irish,	Miner,	51	M.	1	5	Number 9,		Fatally burned by the explosion of a keg of powder while they were riding in an empty trip of cars on gangway road in Marcy vein.
	George Zigmound,	Polish,	Laborer,	27	S.	....	....			
	Andrew Sepcock,	Lithuanian,	Laborer,	26	S.	....	....			
Feb. 16	Metro Humco,	Russian,	Company man	27	S.	....	....	Laflin,		Killed by being caught between cage and roof in shaft while attempting to get on cage after the signal had been given to hoist.
19	James Murphy,	American,	Trackman,	38	M.	1	5	Barnum,		Killed by being caught between mine car and pillar on gangway road. The car ran off track.
21	Martin McNulty,	Irish,	Miner,	50	M.	1	....	Number 9,		Killed by premature blast that he was firing at face of breast.
22	Emanuel Skidmore,	American,	Carpenter,	23	M.	1	....	Pine Ridge,		Instantly killed by his clothing being caught by a revolving line shaft in breaker. Outside.
March 4	John Moran,	American,	Miner,	30	S.	....	....	Butler,		Killed by fall of top rock while robbing pillars.
6	Edward Cheleuskie,	Polish,	Laborer,	22	S.	....	....	Pine Ridge,		Fatally burned by gas in old workings. Died March 14.
15	Martin Sartino,	Polish,	Miner,	32	M.	1	3	Number 14,		Fatally injured by fall of top rock at face of breast. Died next day.

Mar.	28	Alex Kernosky,	Polish,	Miner,	38	M.	1	4	Ewen,		Instantly killed by fall of top rock while robbing.
June	5	Walter Fitzsimons,	Irish,	Runner,	22	S.			Number 6,		Fitzsimons was instantly killed and Quinn was fatally injured by an explosion of gas.
		Martin Quinn,	Irish,	Road cleaner,	71	M.	1				
	12	Michael Milcahy,	American,	Miner,	60	M.	1		Butler,		Instantly killed by fall of top rock 10 feet from face.
	20	Bronick Kapinski,	Polish,	Miner,	38	M.	1	2	Mineral Spring,		Killed by fall of rock after firing a blast at face of breast.
	30	Samuel Rose,	Italian,	Miner,	34	M.	1	4	Number 6,		Fatally injured by the explosion of a keg of powder. Died July 3.
July	21	Frank Holubcheck,	Austrian,	Miner,	29	M.	1	7	Barnum,		Instantly killed by fall of top rock while robbing.
	22	Michael Vencike,	Polish,	Miner,	35	M.	1	3	Number 9,		Fatally injured by a blast that he was firing. Died same day.
Aug.	3	Michael Gibbons,	Irish,	Miner,	50	M.	1	2	Number 6,		Fatally injured by a blast that he was firing. He thought it had missed and returned to investigate when it exploded. Died same day.
	29	Stanley Olenshefiski,	Russian,	Laborer,	19	S.			Barnum,		Instantly killed by coal falling off pillar on him.
	31	Frank Workola,	Lithuanian,	Miner,	33	S.			Number 6,		Killed by fall of rider coal at face of breast.
Sept.	1	John Bucan,	Polish,	Laborer,	22	S.			Ewen,		Killed by fall of rock while shoveling coal to road at face of breast.
	7	Michael Warzewich,	Polish,	Miner,	40	M.	1	1	Number 9,	Luzerne,	Instantly killed by explosion of blast while tamping powder in a hole at face of breast.
		Joseph Suckatowski,	Lithuanian,	Laborer,	22	S.					
	11	Michael Gait,	Lithuanian,	Miner,	28	M.	1	3	Ewen,		Instantly killed by fall of roof rock at face of pillar robbing. He fired a blast, which knocked out two props, and while standing the props the roof fell.
	30	John Bernott,	Polish,	Laborer,	40	M.	1	4	Number 9,		Instantly killed by fall of rock while laying track in breast.
Oct.	4	Triana Lorenzo,	Italian,	Laborer,	24	M.	1		Butler,		Fatally injured by a premature blast. Died same day.
	27	Peter Lensenski,	Polish,	Laborer,	26	S.			Number 6,		Fatally injured by fall of rock at face of breast. Died same day.
Nov.	7	Michael Kitchen,	American,	Driver,	19	S.			Mineral Spring,		Instantly killed by being crushed between cars on gangway road.
	9	Michael Poster,	Slavonian,	Doorboy,	17	S.			Mineral Spring,		Instantly killed by falling off trip of loaded cars on gangway road. He jumped on trip while passing the door.
	22	Charles Hans,	German,	Electrician,	18	S.			Number 14,		Instantly killed by being drawn through the rolls. He got on top of the covering over the rolls to repair a lamp and slipped off into the chute. Outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 12	Stanley Pecos,	Polish.	Laborer,	24	M.	1	1	Barnum,	Luzerne,	Instantly killed by falling off the cage while being hoisted up the shaft. He dropped his lamp when the cage started, and trying to recover it, he leaned out in the shaft and was caught by the buntings and pulled off the cage.
	Henry Chichi,	Italian,	Miner,	27	S.			Butler,		Instantly killed by a premature blast that he was firing in face of breast.
23	John Pluisatus,	Polish,	Miner,	58	M.	1		Number 9,		Killed by fall of top rock at face of breast.
27	Lawrence Kolchinski,	American,	Laborer,	20	S.			Delaware,		Instantly killed by being caught on line shaft in the breaker. He crawled under the fencing and climbed up the timber to the line shafting and in reaching over same his clothing was caught by a set screw on the shaft. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Anthony Gowley,	Russian,	Miner,	31	S.	Ewen,		Face and hands burned by explosion of gas at face of breast.
17	George Chichurie,	Russian,	Laborer,	25	S.	Delaware,		Leg broken by car while dumping a car of rock. Outside.
	George Raskie,	German,	Driver,	17	S.	Number 14,		Collar bone fractured by being caught between car and door post on gangway.
25	Victor Gudavitch,	Lithuanian,	Laborer,	22	S.	Number 9,		Burned and injured by the explosion of a keg of powder while riding in an empty trip of cars hauled by an electric motor on gangway road. The powder was ignited in some unknown manner. Three persons were killed by this explosion.
	Michael Jicks,	Italian,	Laborer,	23	S.			
	William Sloviskie,	Polish,	Laborer,	40	M.			
	Catal Mersetal,	Italian,	Laborer,	24	S.			
	Thomas Oliver,	American,	Driver,	16	S.	Laflin,	Luzerne,	Leg bruised by falling off car bumper on which he was riding on gangway.
Feb. 16	Michael Garahan,	Irish,	Miner,	43	M.	Number 14,		Leg broken by rock sliding down on him while barring it down at face of breast.
18	Henry McHale,	American,	Headman,	17	S.	Barnum,		Leg broken by mine car while running it off the cage at foot of shaft. Outside.
20	Arch Hines,	American,	Machinist,	34	M.	Number 9,		Badly bruised by falling off a ladder while oiling machinery. Outside.
Mar. 10	John Mushock,	American,	Driver,	16	S.	Pine Ridge,		Arm broken by being kicked by a mule on gangway road.
27	William Raymond,	American,	Driver,	17	S.	Delaware,		Arm broken by falling on it while running to sprag car on gangway road.
April 3	Toney Copitz,	Italian,	Laborer,	27	S.	Number 6,		Hips and back bruised by fall of rock at face of breast.
4	Paul Paluka,	Polish,	Laborer,	29	M.	Pine Ridge,		Face and hands slightly burned by gas at face of breast.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April 4	Joseph Rava,	Polish,	Laborer,	50	M.	Number 9,		Pelvis fractured by top coal falling off pillar on him close to face.
	Nicholas Goushuey,	Russian,	Miner,	28	M.	Pine Ridge,		Head and body cut and bruised by flying coal from premature blast on breast road.
6	Joseph S. Burns,	English,	Miner,	65	M.	Number 9,		Four toes cut off by cage at foot of shaft.
19	J. F. Decker,	American,	Carpenter,	40	M.	Delaware,		Shoulder dislocated by falling in pocket in breaker. Outside.
May 1	Toney Schilling,	Italian,	Trackman,	29	M.	Butler,		Collar bone broken and scalp severely wounded. He attempted to move an electric motor and it ran away with him, jumped the track, and ran into pillar on gangway road.
3	John Padock,	Russian,	Runner,	28	S.	Laflin,	Luzerne,	Leg broken by runaway car on slope, caused by rope breaking.
6	Henry Rowen,	American,	Laborer,	30	S.	Pine Ridge,		Shoulder broken by falling against car while running from blast on gangway road.
8	Morgan Watkins,	Welsh,	Driver,	30	M.	Mineral Spring,		Leg broken by runaway car on plane. The rope broke.
11	John W. Burke,	American,	Miner,	50	M.	Pine Ridge,		Head and leg bruised by drill falling on him at face of breast.
	John Socho,	Slavonian,	Driver,	18	S.	Pine Ridge,		Shoulder bone broken by falling off car on gangway road.
12	John Levish,	Polish,	Miner,	29	M.	Number 9,		Leg broken and head cut by flying coal from a premature blast he was firing in breast.
13	Martin Kearney,	American,	Miner,	31	M.	Butler,		Leg broken by fall of rider coal at face of gangway.

May	31	Joseph Kosack,	Bohemian,	Runner,	23	S.	Laflin,		Arm broken by being caught between car and roof on gangway road.
June	6	Michael Alaino,	Italian,	Slatepicker,	14	S.	Ewen,		Collar bone broken by falling off roof of breaker to ground. Outside.
	7	James A. Durkin,	American,	Driver,	19	S.	Pine Ridge,		Arm broken while spragging car on gangway.
	8	Con Vistock,	Polish,	Runner,	19	S.	Number 14,		Skull fractured by being struck by fall of rock on gangway.
	17	Felix Jewback,	Austrian,	Miner,	39	M.	Number 14,		Jaw broken by a premature blast that he was firing in breast.
	28	Jacob Mushock,	Polish,	Miner,	47	M.	Pine Ridge,		Leg broken while placing mine car on track at foot of breast.
July	3	Joseph Vaitcus,	Polish,	Laborer,	40	S.	Number 14,		Leg broken by piece of rock falling from roof on him at face of breast.
	19	Joseph Kosack,	Bohemian,	Runner,	23	S.	Laflin,		Arm broken while unhooking cars from rope on plane.
	20	Joseph Napora,	Polish,	Laborer,	30	M.	Pine Ridge,		Leg broken by rock falling off side of gangway ten feet from face.
	21	Benjamine Polkevich,	Polish,	Miner,	28	M.	Laflin,		Kicked in stomach by the mule he was driving on gangway road.
	22	Andrew Barkowski,	Lithuanian,	Trackman,	25	S.	Laflin,		Leg broken by car which jumped the track while he was riding down slope.
	24	Stephen Laikuskas,	Lithuanian,	Miner,	50	M.	Ewen,		Back fractured by fall of rock in crosscut that he was driving at face of breast.
	25	James Dixon,	American,	Miner,	32	M.	Pine Ridge,	Luzerne,	Burned by an explosion of gas at working face in Red Ash vein.
		Joseph Watsmonsky,	Polish,	Laborer,	25	S.			
		John Slusar,	Polish,	Laborer,	27	S.			
Aug.	4	Anthony Fisher,	Polish,	Miner,	45	M.	Pine Ridge,		Arm broken by falling while running away from blast on chamber road.
	9	Jacob Litshman,	Polish,	Miner,	35	M.	Pine Ridge,		Skull fractured by flying coal from a blast he was firing in a breast.
	11	Joseph Edre,	French,	Miner,	45	M.	Number 9,		Collar bone broken while placing car on track on gangway.
	16	Thomas Flynn,	Irish,	Miner,	46	M.	Number 14,		Ankle broken by fall of top coal at face of breast.
	17	Samuel Mandola,	Italian,	Miner,	35	M.	Number 6,		Ankle broken by rock bell falling out of the roof on him at face of breast.
	24	Michael Morris,	Polish,	Miner,	40	M.	Delaware,		Spine fractured by fall of rock at face of airway.
	20	Edward McHugh,	American,	Runner,	18	S.	Number 6,		Leg broken by car on gangway road. He was standing on bumper and slipped off.
Sept.	11	Jacob Doaryack,	Polish,	Miner,	40	M.	Pine Ridge,		Head and face cut by flying coal while firing a blast in breast. He thought the squib had missed and was returning to investigate.
	16	Adam Halath,	Polish,	Laborer,	30	M.	Pine Ridge,		Arm broken by falling while walking down the manway on his way to work.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 30	Stephen Undereekar,	Slavonian,	Laborer,	21	S.	Number 9,		Leg broken by being struck by car on gangway road.
Oct. 4	Angelo Bow,	Italian,	Miner,	31	M.	Butler,		Leg broken by a premature blast he was going to fire in the gangway. His laborer was killed.
7	Peter Golish,	Slavonian,	Company man,	37	M.	Butler,		Legs broken by fall of coal while robbing pillar.
10	James Moffett,	Irish,	Miner,	51	M.	Barnum,		Leg broken by fall of coal at face of breast.
13	Ignatz Sebastian,	Polish,	Miner,	33	S.	Number 9,		Leg broken by fall of coal at face of breast.
23	George Deboskie,	Polish,	Miner,	40	S.	Pine Ridge,		Leg broken by fall of fire-clay roof at face of breast.
27	Jacob Strano,	Polish,	Laborer,	35	M.	Laflin,	Luzerne,	Back bruised by fall of middle rock in a cross-cut that he was driving.
Nov. 6	Peter Lubera,	Polish,	Laborer,	23	S.	Delaware,		Leg broken by fall of top rock at face of breast.
10	Joseph Nardoskie,	Lithuanian,	Laborer,	21	M.	Number 6,		Leg broken by fall of middle rock at face of breast.
11	John Push,	Russian,	Miner,	26	M.	Laflin,		Back and breast bruised by being caught between car and mule that he was driving on gangway road.
21	Dominick Zaueckes,	Italian,	Miner,	28	S.	Number 14,		Leg broken by fall of rock at face of breast.
Dec. 1	Henry Schriver,	American,	Driver	18	S.	Number 6,		Leg broken by runaway car on plane.
2	Anthony Angelo,	Italian,	Laborer,	27	M.	Number 9,		Collar bone broken by fall of soap stone at face of breast.

Dec.	11	John Ruelnitis,	Lithuanian,	Laborer,	24	S.	Number 9,	Luzerne,	Head severely cut and bruised by coal flying from a blast at face of breast.
	12	Lawrence Martin,	Italian,	Miner,	25	M.	Laflin,		Leg broken by flying coal from a blast that he was firing on breast road.
	15	John Chill,	Polish,	Miner,	25	S.	Pine Ridge,		Face and hands burned by gas in abandoned workings.
	22	Joseph Briski,	Polish,	Loader,	39	M.	Number 9,		Arm broken by falling off top of box car at breaker. Outside.
	27	Joseph Shotousky,	Lithuanian,	Laborer,	27	S.	Number 6,		Leg broken by piece of roof rock falling on him at face of breast.

Explosion of Gas in Hoyt Shaft, Ewen Colliery, of Pennsylvania Coal Company

January 10.—Mathew Daily, company man, Frank Leish, laborer, and Patrick Bulger, company man, were fatally injured by an explosion of gas in Pittston vein. At 1.30 p. m., Bulger was sent to build a wall to direct the air current up to a counter gangway above, where Frank Leish was working. Mathew Daily was cleaning the road on the counter gangway. The fire boss on the above morning failed to discover any gas in the working places. The supposition is that Bulger had about completed the wall that directed the air current up into the abandoned breast where gas had accumulated when the gas was carried into the face of counter gangway and ignited by the open light of Frank Leish, who was the only person burned. Daily was suffocated by the after-damp, Leish died January 12 and Bulger died January 25, from injuries received due to the concussion.

Explosion of Powder in Number 10 Shaft, Number 9 Colliery, of Pennsylvania Coal Company

January 25.—Michael Roach, miner, George Zigmound, laborer, and Andrew Sepcock, laborer, were fatally burned by the explosion of a keg of powder.

These men got into a trip of empty cars with a keg of powder to ride in the gangway to work. The trip of cars was hauled in the gangway, Marcy vein, by an electric motor and the powder was ignited either by the electric current or by the men in the car. Roach died the same evening, Zigmound February 1, and Sepcock February 2.

Four other persons were slightly burned by this explosion while riding in the car next to the one containing the powder.

Explosion of Gas in Number 11 Shaft, Number 6 Colliery, of Pennsylvania Coal Company

June 5.—Walter Fitzsimons, car runner, was instantly killed and Martin Quinn, road cleaner, was fatally burned by an explosion of gas. As June 4 was Sunday, the ventilating fan on Number 5 shaft was slowed down to allow repairs to be made in the shaft, and the fan was not started at its regular speed until sometime in the night. In the meantime gas had accumulated in the workings of Number 6 shaft, Red Ash vein, which is connected through Number 5 workings up to Number 11 shaft.

The mule barn is situated in the workings between Number 11 and Number 5 shafts, and the drivers go down Number 5 shaft to the barn.

The fire boss of Number 11 shaft entered the mine at his usual time in the morning of the 5th and made his examination. On arriving at the foot of the shaft he met Martin Quinn, the road cleaner, at 6.00 a. m., and placed him at a door close to the manway to the barn and told him to allow no person to go in until he returned from examining the workings inside. At 6.45 a. m., Fitzsimons came down and started down the manway to the barn and lighted a body of gas with his open light.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Barnum No 9, Ewen No. 6 and No. 14.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Pine Ridge and Laflin.—Ventilation, drainage and condition as to safety, good.

HILLSIDE COAL AND IRON COMPANY

Butler.—Ventilation, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Heidelburg No. 1. and Mineral Spring.—Ventilation, drainage and condition as to safety, good.

DELAWARE AND HUDSON COMPANY

Delaware.—Ventilation, drainage and condition as to safety, good.

YOST MINING COMPANY

Yost.—Ventilation, drainage and condition as to safety, good.

McCAULEY COAL COMPANY

Pickaway.—Ventilation fair. Drainage and condition as to safety, good.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Barnum Colliery.—A rock tunnel 7x12 feet, was driven from the Marcy to the Pittston vein, a distance of 300 feet, to mine the coal under the city of Pittston.

Number 9 Colliery.—The No. 3 shaft on Broad street, Pittston, was concreted from the surface to rock, and is now being sunk to the Red Ash vein, to be used as a second opening for No. 1 shaft and for ventilation; size of shaft, 10x20 feet.

At Leadville shaft a horizontal, triplex expansion, direct-acting wood-lined plunger pump was installed to deliver 2,500 gallons of water per minute against a head of 500 feet.

Number 14 Colliery.—A new slope 7x12 feet was sunk from the surface to the Diamond vein, and is driven in the vein 700 feet. A concrete arch has been put in from the surface to the vein. A new air shaft 12x12 feet has been sunk from the surface to the Diamond vein and concreted from the surface to the rock. A new concrete and steel air bridge, to connect the slope airway to the air shaft, has been completed.

Two new shafts have been in progress of sinking from the surface to the Red Ash vein. No. 1 shaft 12x16 feet is down to the Marcy vein and is concreted from the surface to rock a depth of 50 feet. No. 2 shaft 12x22 feet is down 90 feet to the rock and is concreted the whole distance.

The new air shaft 12x12 feet in progress of sinking in 1910, from the surface to the Checker vein and Pittston vein, has been completed and concreted from the surface to a point about 30 feet below the Hillman vein, making 90 feet of concrete.

The Chapman slope which was abandoned by the Irondale Coal Company in the year 1849, was reopened by the Pennsylvania Coal Company to recover the pillars left. The coal is taken to Number 14 breaker, over land 1,000 feet, and prepared for market.

LEHIGH VALLEY COAL COMPANY

Mineral Spring Colliery.—The new steel breaker, to replace the one destroyed by fire in March, 1910, was completed and resumed operations April 3. In connection with the breaker, an Ottumwa box car loader was installed, and a new breaker engine house, containing hoisting engine, breaker engine and jig engine, was built. The loading of the coal into railroad cars is done by means of a 36-inch rubber belt, which conveys the coal from the pockets to the cars. A Barney plane for hoisting the coal up into the breaker was installed. The empty car plane was dismantled and the cars from the breaker are now run by gravity over a steel trestle to the head of the Red Ash shaft and Baltimore slope. The entire yard surrounding the breaker was graded and terraced and retaining walls built at the foot of these terraces. An 8-inch bore hole 77 feet deep was drilled to drain the water from the box car loader pit to the Baltimore vein. An 8-inch bore hole was drilled from the surface to the Red Ash vein for silting; which is to be used in the event of the hole now in use becoming blocked. An 8-inch bore hole for rope was put down from the surface to the head of the Red Ash No. 5 plane. A pair of 20x48-inch first motion engines was installed on the surface, east of the reservoir, to operate this plane. —The Coal Brook coal will be lowered by these engines to the shaft level. Work was started on the reconstruction of the mule barn to make it absolutely fireproof. The timber at the head of the Baltimore slope was removed and a reinforced concrete mouth constructed.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen, was held at the Y. M. C. A. Hall, Pittston, April 4 and 5. The Board of Examiners was composed of Thomas J. Williams, Mine Inspector; Henry T. McMillan, Superintendent; David P. Williams and James Martin, Miners.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John Burke, John E. Phillips, John Cosgrove, Avoca; Robert Metcalf, Duryea; John J. Mattick, Hudson; Michael Cavanaugh, Hughestown; David J. Jenkins, West Pittston.

Assistant Mine Foremen

William Owens, Richard M. Hughes, Thomas Daley, Avoca; Thomas Jones, Hughestown; George C. Ayers, William Mattick, Hudson; William Palmer, Samuel May, Pittston; James Gardiner, Plains; George Fairclough, Laflin; Thomas L. Williams, Duryea; Edward J. Quinn, Yates.

SEVENTH DISTRICT

LUZERNE COUNTY

Wilkes-Barre, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Seventh Anthracite District, for the year ending December 31, 1911.

The report contains the statistical information required by law, with a brief description of the fatal and non-fatal accidents that occurred during the year.

Respectfully submitted,
THOMAS H. PRICE, Inspector.

17—24—1911

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	49
Number of mines in operation,	49
Number of tons of coal shipped to market,	4,651,199
Number of tons used at mines for steam and heat,	575,405
Number of tons sold to local trade and used by employes,	242,715
Number of tons produced,	5,469,319
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	8,125
Number of persons employed outside,	2,437
Number of fatal accidents inside of mines,	36
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	45
Number of non-fatal accidents outside,	6
Number of tons of coal produced per fatal accident inside,	151,926
Number of persons employed per fatal accident inside,	226
Number of persons employed per fatal accident outside,	1,218
Number of persons employed per non-fatal accident inside,	181
Number of persons employed per non-fatal accident outside,	406
Number of wives made widows,	23
Number of children made orphans,	51
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	28
Number of compressed air locomotives used inside,	14
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	15
Number of electric motors used outside,	.....
Number of fans in use,	48
Number of furnaces in use,	.....
Number of gaseous mines in operation,	46
Number of non-gaseous mines in operation,	3
Number of new mines opened,	3
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh and Wilkes-Barre Coal Company,	2,505,886
Lehigh Valley Coal Company,	1,875,517
Delaware and Hudson Company,	657,156
Red Ash Coal Company,	218,472
North American Coal Company,	68,248
Pittston Coal Mining Company,	54,490
Wilkes-Barre Anthracite Coal Company,	50,075
Miners Mills Coal Mining Company,	39,475
Total,	5,469,319

Production by Counties

Luzerne,	5,469,319

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Lehigh and Wilkes-Barre Coal Co.,	20	2	22	20	2	22	125,294	125,294	4,194	875	5,069	210	438	210	438
Lehigh Valley Coal Co.,	9	-------	9	17	1	18	208,391	110,325	2,448	636	3,084	272	-------	144	636
Delaware and Hudson Co.,	4	-------	4	6	1	7	164,289	109,526	848	457	1,305	212	-------	141	457
Red Ash Coal Co.,	2	-------	2	2	2	4	109,236	109,236	336	288	624	168	-------	168	144
Wilkes-Barre Anthracite Coal Co.,	1	-------	1	-------	-------	-------	50,075	----------	96	42	138	96	-------	-------	-------
Miscellaneous Companies,	-------	-------	-------	-------	-------	-------	----------	----------	203	139	342	-------	-------	-------	-------
Totals and averages for district,	36	2	38	45	6	51	151,926	121,540	8,125	2,437	10,562	226	1,218	181	406

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1	1	1			1			4	11.11
Falls of roof,		1			1	1	2	1		1		3	10	27.78
Mine cars,	1										1		2	5.56
Explosions of gas,			1			1			2		3		7	19.44
Suffocation by gas, etc.,						1							1	2.78
Explosions of powder and dynamite,									1	1			2	5.55
Blasts, premature and otherwise,		2	1					1		1			5	13.89
Falling into shafts,									1				1	2.78
Crushed at batteries,									1	1			2	5.55
Mules,										1			1	2.78
Struck by rock,											1		1	2.78
Totals,	1	3	2		2	4	3	2	5	6	5	3	36	100.00
Causes of Accidents Outside														
Cars,						1							1	50.00
Machinery,	1												1	50.00
Totals,	1					1							2	100.00
Grand totals inside and outside,	2	3	2		2	5	3	2	5	6	5	3	38	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2		1			1	1	1			1		7	15.56
Falls of slate,				1									1	2.22
Falls of roof,			1	1	1			1	1				5	11.11
Mine cars,		1	2	3	3	2			1	1	1	1	15	33.34
Explosions of powder and dynamite,									1				1	2.22
Blasts, premature and otherwise,		1						1		1		2	5	11.12
Falling into slopes, etc.,				1									1	2.22
Mules,											1		1	2.22
By falling,	1					1				1			3	6.67
Struck by rope,							1				1		2	4.44
Struck by lever,	1												1	2.22
Struck by piece of coal,			1										1	2.22
Struck by timber,			1										1	2.22
Struck by pipe,								1					1	2.22
Totals,	4	2	6	6	4	4	2	4	3	3	4	3	45	100.00
Causes of Accidents Outside														
Cars,					1	1							2	33.34
Machinery,		1											1	16.67
Struck by frozen dirt,		1											1	16.67
Struck by piece of rock,						1							1	16.66
By falling,											1		1	16.66
Totals,		2			1	2					1		6	100.00
Grand totals inside and outside,	4	4	6	6	5	6	2	4	3	3	5	3	51	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,						1							1
Miners,		3	1		1		1	2	3	3	3		17
Miners' laborers,			1		1	1	2		2	2	1	3	13
Drivers and runners,										1			1
Doorboys and helpers,						1					1		2
Footmen,	1												1
Bratticemen,						1							1
Totals,	1	3	2		2	4	3	2	5	6	5	3	36
Outside													
Foremen,	1												1
Loaders,						1							1
Totals,	1					1							2
Grand totals inside and outside,	2	3	2		2	5	3	2	5	6	5	3	38

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	2	3	2	1	1	2			1	2	16
Miners' laborers,	1		1	1				1	3	2			9
Drivers and runners,	1	1		1	1	2				1	1	1	9
Doorboys and helpers,					1		1				1		3
Dumpers,			1										1
Footmen,			2								1		3
Headmen,				1		1							2
Timbermen,								1					1
Electricians,	1												1
Totals,	4	2	6	6	4	4	2	4	3	3	4	3	45
Outside													
Runners,						1							1
Laborers,		2											2
Loaders,					1								1
Miners,						1							1
Slatepickers (boys),											1		1
Totals,		2			1	2					1		6
Grand totals inside and outside,	4	4	6	6	5	6	2	4	3	3	5	3	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2					1				1			4
English,											1		1
Welsh,		1											1
Irish,		1				1					1		3
Polish,		1	1			1		2	3	3	2		13
Italian,										1			1
Slavonian,			1			1							2
Lithuanian,					1				2		1	1	5
Austrian,					1								1
Russian,							3			1		2	6
Assyrian,						1							1
Totals,	2	3	2		2	5	3	2	5	6	5	3	38

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2		1			3	1	1		1	2		11
Irish,				1	1			1				1	4
Polish,	2	3	2	1	3	1	1	1	1	1	2	2	20
Hungarian,						1							1
Italian,						1							1
Slavonian,		1	1	1									3
Lithuanian,			2	1				1	1				5
Austrian,				1									1
Russian,				1	1				1	1			4
Mexican,											1		1
Totals,	4	4	6	6	5	6	2	4	3	3	5	3	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh and Wilkes-Barre Coal Co.															
Hollenback No. 2 Colliery:															
Hollenback No. 1,	Shaft,	Gaseous,	Fan,	35	11.6	8.9	41	1.1	Guibal,	Steam,	19	372,520	355,110	440,940	585
Hollenback No. 2,	Slope,		Fan,*	24	7.11	6.0	61	1.1							
Hollenback No. 3,	Slope,		Fan,	35	11.9	8.9	45	1.7							
Hollenback No. 4,	Shaft,		Fan,*	35	11.9	8.9	45	1.7							
South Wilkes-Barre No. 5 Colliery:															
South Wilkes-Barre No. 1,	Shaft,	Gaseous,	Fan,	35	11.9	8.9	45	1.5	Guibal,	Steam,	39	479,660	353,615	530,830	738
South Wilkes-Barre No. 2,			Fan,*	35	11.9	8.9	45	1.5							
South Wilkes-Barre No. 3,			Fan,	35	11.9	8.9	45	1.7							
South Wilkes-Barre No. 4,			Fan,*	35	11.9	8.9	45	1.7							
Stanton No. 7 Colliery,															
Stanton No. 1,	Shaft,	Gaseous,	Fan,	24	8.0	6.0	60	1.5	Guibal,	Steam,	23	371,160	325,560	400,360	603
Stanton No. 2,				35	11.7	8.9	44	1.7							
Empire No. 4,				34.5	11.9	8.45	44	1.7	Guibal,	Steam,	7	79,200	73,700	81,300	202
Sugar Notch No. 9 Colliery:															
Sugar Notch No. 1,	Drift,	Gaseous,	Fan,	20	6.8	5.0	72	1.4	Guibal,	Steam,	15	372,000	317,195	464,375	576
Sugar Notch No. 2,	Shaft,	Gaseous,	Fan,	24	8.0	6.0	55	1.4							

*Emergency fan.

Maxwell No. 20 Colliery:															
Maxwell No. 1,	Slope,	Gaseous,	Fan,	25	8.2	6.3	80	1.1	Guibal,	Steam,	28	446,450	420,170	485,450	824
Maxwell No. 2,	Shaft,		Fan,*	24	8.0	6.0	80	1.1							
Maxwell No. 3,	Shaft,		Fan,	35	11.9	8.9	45	.7							
Maxwell No. 4,	Shaft,		Fan,*	35	11.9	8.9	45	.7							
Lehigh Valley Coal Co.															
Prospect Colliery:															
Prospect No. 1,	Shaft,	Gaseous,	Fan,*	25	8.2	6.3	80	1.7			7	161,000	151,312	168,200	170
Prospect No. 2,	Shaft,		Fan,	30	9.0	8.0	52	1.7			8	186,000	174,800	190,000	317
Oakwood,†	Shaft,		Fan,	30	9.0	8.0	51	1.6			6	97,070	88,690	103,490	130
Midvale,	Slope,		Fan,	30	6.6	5.3	66	1.2			5	94,653	91,080	102,430	133
Henry,	Shaft,		Fan,	30	10.0	8.0	56	2.7			4	71,242	68,208	77,449	174
Five Foot,	Slope,		Fan,	28	6.6	7.6	46	1.6	Guibal,	Steam,	9	90,758	80,851	106,357	59
Wyoming,†	Shaft,		Fan,	25	7.0	6.0	50	1.1			6	126,400	109,500	138,100	202
Red Ash,	Slope,		Fan,	28	6.6	7.6	51	1.5			5	80,000	58,000	92,000	150
Hillman,	Slope,		Fan,	15	4.6	3.8	80	1			2	11,200	10,000	11,600	85
Wyoming,	Slope,		Fan,*	15	4.6	3.8	80	1.			2	44,600	29,000	50,000	------
Warrior Run,	Slope,		Fan,	20	6.0	5.0	72	1.2			5	116,000	110,000	154,000	161
No. 4 Hillman,‡	Slope,		Fan,	14	4.0	3.6	65	.5							
Dorrance Colliery:															
Dorrance No. 1,	Shaft,	Gaseous,	Fan,	28	8.0	10.0	60	1.7	Guibal,	Steam,	9	159,534	127,487	174,531	583
Dorrance No. 2,			Fan,	35	12.0	10.2	47	1.9			8	152,672	127,490	162,672	
Dorrance No. 3,			Fan,*	30	10.0	8.0	54	1.9							
Franklin Colliery:															
Rock Slope,	Slope,	Gaseous,	Fan,	20	6.0	5.9	80	1.2	Guibal,	Steam,	5	92,100	90,100	94,500	185
Long Slope,	Slope,	Gaseous,	Fan,	14	6.0	4.0	80	.8			3	62,800	60,000	64,700	66
Sump Slope,	Slope,	Gaseous,	Fan,	15	4.6	4.6	80	1.			2	27,800	26,400	29,300	53
Tunnel Drift,	Tunnel,	Non-gas.,	Natural,								3	21,000	17,000	22,500	42
Delaware and Hudson Co.															
Baltimore No. 5 Colliery:															
Baltimore No. 2,	Shaft,	Gaseous,	Fan,	17.5	5.3	4.8	64	2.2	Guibal,	Steam,	4	126,385	109,895	141,975	160
Baltimore No. 5,			Fan,	28	7.0	5.6	65	2.8			5	192,605	168,050	207,130	213
Baltimore No. 5,			Fan,	28	7.0	5.6	65	2.8							
Conyngham Hillman,			Fan,	20	5.8	5.0	78	1.8			3	85,770	80,640	89,930	88
Conyngham Baltimore,			Double fan.	17	5.4	4.0	90	1.7			4	102,920	91,350	125,960	23
Baltimore Tunnel Colliery:															
Baltimore Tunnel,	Tunnel,	Gaseous,	Fan,	8	5.0	2.2	75	.8	Guibal,	Steam,	3	21,200	18,430	23,120	81
Baltimore Shaft,	Shaft,	Gaseous,	Fan,	20	5.8	5.0	52	1.	Guibal,	Steam,	4	97,310	78,820	116,550	128

*Emergency fan.
†Abandoned.
‡New opening.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Red Ash Coal Co.															
Red Ash No. 2 Colliery:															
Red Ash No. 1,	Slope,	Non-gas.,	Fan,	15	5.0	3.9	78	1.6	Vulcan,	Steam,	3	58,000	49,000	68,000	212
Red Ash No. 2,	Slope,	Non-gas.,	Fan,	15	5.0	3.9	64	1.5	Vulcan,	Steam,	6	54,000	50,000	59,000	124
Pittston Coal Mining Co.															
Hadleigh Colliery:															
Hadleigh,	Shaft,	Gaseous,	Fan,	17	4.6	5.6	80	1.5	Tamaqua,	Steam,	4	52,000	30,000	68,000	107
Wilkes-Barre Anthracite Coal Co.															
Hillman Vein Colliery:															
Hillman,	Shaft,	Gaseous,	Fan,	30	10.0	8.0	50	3.0	Tamaqua,	Steam,	2	85,500	58,200	100,000	96
Miners Mills Coal Mining Co.															
Healey Colliery:															
Slope No. 1,	Slope,	Gaseous,	Fan,	5.5	2.4	1.6	143	1.	Buffalo,	Electricity,	1	12,000	11,000	15,000	21
Slope No. 2,§	Slope,	Gaseous,	Fan,	9.0	2.0	2.6	78	3	Buffalo,	Electricity,	1	28,000	24,000	29,500	65

§New opening.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh and Wilkes-Barre Coal Co. Hollenback No. 2, South Wilkes-Barre No. 5, Stanton No. 7, Sugar Notch No. 9, Maxwell No. 20, Empire Washery,	Luzerne,	C. F. Huber, General Manager.	Wilkes-Barre,	Wm. H. Herring, Outside. Morgan R. Morgans, Inside.	Wilkes-Barre,	Central Railroad of New Jersey
Lehigh Valley Coal Co. Prospect, Dorrance, Franklin,	Luzerne,	F. M. Chase,	Wilkes-Barre,	Thomas Thomas,	Dorranceton,	Lehigh Valley
Delaware and Hudson Co. Baltimore No. 5, Baltimore Tunnel, Baltimore Slope Washery, Baltimore Tunnel Washery, Conyngham Washery,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Red Ash Coal Co. Red Ash No. 2, Red Ash Washery,	Luzerne,	T. F. Munford,	Wilkes-Barre,	T. F. Munford,	Wilkes-Barre,	Central Railroad of New Jersey
North American Coal Co., Sugar Notch Washery,	Luzerne,	H. W. Saums,	Wilkes-Barre,	H. W. Saums,	Wilkes-Barre,	Central Railroad of New Jersey
Pittston Coal Mining Co. Hadleigh,	Luzerne,	M. W. O'Boyle,	Pittston,	C. M. O'Boyle,	Kingston,	Central Railroad of New Jersey
Wilkes-Barre Anthracite Coal Co. Hillman Vein,	Luzerne,	James B. Neale,	Minersville,	John Conway,	Minersville,	Lehigh Valley
Miners Mills Coal Mining Co. Healey,	Luzerne,	M. J. Healey,	Plains,	M. J. Healey,	Plains,	Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lehigh and Wilkes-Barre Coal Co.													
Hollenback No. 2,	Luzerne,	340,789	43,740	39,321	423,850	229	843	2	1	309,450	11,470	34,425	91
South Wilkes-Barre No. 5,		448,935	45,360	95,859	590,154	240	1,260	5	11	475,775	10,647	68,180	130
Stanton No. 7,		300,616	43,609	3,180	347,405	124	1,137	2	1	275,875	11,760	11,646	133
Sugar Notch No. 9,		342,482	20,179	6,261	368,922	237	746	5	3	265,250	13,810	81,137	92
Maxwell No. 20,		636,926	44,527	12,093	693,546	233	1,043	8	6	392,500	10,200	46,900	122
		2,069,748	197,415	156,714	2,423,877	.....	5,029	22	22	1,718,850	57,887	242,288	568
Empire Washery,	Luzerne,	80,847	.....	1,162	82,009	294	40	.....	.....	.....	.....	.....	3
Totals,		2,150,595	197,415	157,876	2,505,886	.....	5,069	22	22	1,718,850	57,887	242,288	571
Lehigh Valley Coal Co.													
Prospect,	Luzerne,	962,133	126,268	5,266	1,093,667	262	1,854	4	9	658,750	242,361	2,082	282
Dorrance,		349,890	45,721	44,937	440,548	246	720	1	7	337,900	42,445	7,100	79
Franklin,		291,921	40,357	9,024	341,302	241	510	4	2	221,475	44,360	.....	92
Totals,		1,603,944	212,346	59,227	1,875,517	.....	3,084	9	18	1,218,125	329,166	9,182	453
Delaware and Hudson Co.													
Baltimore No. 5,	Luzerne,	277,307	7,829	2,715	287,851	187	851	4	6	198,450	5,401	.....	97
Baltimore Tunnel,		234,411	922	6,409	241,742	213	419	.....	1	150,700	1,069	.....	51
		511,718	8,751	9,124	529,593	.....	1,270	4	7	349,150	6,470	.....	148

Baltimore Slope Washery,	Luzerne,	5,594	11,792	----------	17,386	46	35	----	----	----------	----------	----------	----------	
Baltimore Tunnel Washery,		517	92,490	----------	93,007	--------	*	----	----	----------	----------	----------	----------	
Conyngham Washery,		----------	17,170	----------	17,170	--------	†	----	----	----------	----------	----------	----------	
		6,111	121,452	----------	127,563	--------	35	----	----	----------	----------	----------	----------	
Totals,		517,829	130,203	9,124	657,156	--------	1,305	4	7	349,150	6,470	----------	148	
Red Ash Coal Company														
Red Ash No. 2,	Luzerne,	180,999	966	3,121	185,086	181	624	2	4	76,950	27,300	----------	61	
Red Ash Washery,		19,456	8,545	5,385	33,386	--------	----------	----	----	----------	----------	----------	----------	
Totals,		200,455	9,511	8,506	218,472	--------	624	2	4	76,950	27,300	----------	61	
North American Coal Co.														
Sugar Notch Washery,	Luzerne,	63,698	4,410	140	68,248	201	39	----	----	----------	----------	----------	----------	2
Pittston Coal Mining Co.														
Hadleigh,	Luzerne,	48,683	5,300	507	54,490	162	155	----	----	6,950	5,000	6,050	15	
Wilkes-Barre Anthracite Coal Co.														
Hillman Vein,	Luzerne,	29,332	14,600	6,143	50,075	138	138	1	----	11,700	----------	----------	8	
Miners Mills Coal Mining Co.														
Healey,	Luzerne,	36,663	1,620	1,192	39,475	168	148	----	----	4,000	24,325	----------	23	
Grand totals,		4,651,199	575,405	242,715	5,469,319	--------	10,562	38	51	3,385,725	450,148	257,520	1,281	

*Men employed in Baltimore Tunnel.
†Men employed in Baltimore No. 5.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,			58	11,942	11,942	7	12		247	21,652	15	16,486	9,630	2	14
Lehigh Valley Coal Co.,				44	9,400	9,400	15	2	11	120	14,050	15	10,895	7,360	4	11
Delaware and Hudson Co.,		18	486	33	7,085	7,571	1		4	135	10,862	12	9,900	4,700	6	2
Red Ash Coal Co.,				3	900	900	5			19	992	4	2,160	1,335		
North American Coal Co.,				2	500	500				11	300					
Pittston Coal Mining Co.,				2	600	600				15	750	1	725	600		
Wilkes-Barre Anthracite Coal Co.,				4	1,200	1,200				6	2,005	2	1,200	395	1	1
Miners Mills Coal Mining Co.,				2	200	200				5	150					
Totals,		18	48	148	31,727	32,313	28	14	15	558	51,361	49	41,366	24,020	13	28

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside												Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,	6	8	46	1,638	1,075	461	221	20	----	719	4,194	----	6	34	143	157	32	21	482	875	5,069
Lehigh Valley Coal Co.,		13	45	----	863	510	330	67	32	----	588	2,448	----	5	28	109	53	13	14	414	636	3,084
Delaware and Hudson Co.,		4	2	11	224	296	92	5	17	174	23	848	----	5	20	79	48	45	6	254	457	1,305
Red Ash Coal Co.,		2	----	----	124	113	44	4	4	37	8	536	1	7	13	22	10	47	3	185	288	824
North American Coal Co.,		----	----	----	----	----	----	----	----	----	----	----	----	1	1	6	8	----	1	22	39	39
Pittston Coal Mining Co.,		1	----	1	49	28	12	1	2	6	7	107	1	1	4	9	11	----	1	21	48	155
Wilkes-Barre Anthracite Coal Co.,		1	----	3	28	22	15	2	2	11	12	96	1	1	5	9	8	2	3	13	42	138
Miners Mills Coal Mining Co.,		1	1	2	34	26	16	1	1	14	----	96	----	2	5	4	20	2	1	18	52	148
Totals,		28	56	63	2,960	2,070	970	301	78	242	1,357	8,125	3	28	110	381	315	141	50	1,409	2,437	10,562

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,	20	14	15	17	19	23	8	14	16	24	22	21	213
Lehigh Valley Coal Co.,		23	18	22	20	24	22	16	18	21	22	22	21	249
Delaware and Hudson Co.,		17	17	19	17	17	17	12	17	17	17	17	16	200
Red Ash Coal Co.,		19	15	16	15	18	17	8	10	12	17	17	17	181
Pittston Coal Mining Co.,		16	6	14	14	17	13	6	13	16	17	16	14	162
Wilkes-Barre Anthracite Coal Co.,		10	11	5	----	----	----	----	27	22	21	21	21	138
Miners Mills Coal Mining Co.,		1	1	1	8	17	19	21	18	21	23	21	17	168

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 14	Hugh Jones,	American,	Footman,	24	S.			Maxwell No. 20,	Luzerne,	Fatally injured by falling under a trip of loaded cars on slope. Died the next day.
16	Frank Osborne,	American,	Chute-boss,	38	M.	1	1	Maxwell No. 20,		Fatally injured by being caught between belt and pulley in breaker. Outside.
Feb. 4	William Mockum,	Polish,	Miner,	49	M.	1	4	Prospect,		Instantly killed by premature blast at face of chamber.
10	Michael Gardiuff,	Irish,	Miner,	49	M.	1	5	Hollenback No. 2,		Fatally injured by premature blast at face of chamber. Died the same day.
24	John Griffiths,	Welsh,	Miner,	53	M.	1	1	Hillman,		Instantly killed by fall of top rock at face of heading while barring down loose coal after a blast.
March 6	John Straka,	Slavonian,	Miner,	42	M.	1	4	Prospect,		Fatally injured by being struck on forehead by a piece of coal from a delayed blast on gangway road. Died March 25.
27	Frank Carcut,	Polish,	Laborer,	23	M.	1		Sugar Notch No. 9,		Fatally burned by explosion of gas at face of chamber.
May 16	Martin Palonis,	Lithuanian,	Miner,	50	M.	1		Sugar Notch No. 9,		Instantly killed by fall of top coal at face of chamber.
19	Jacob Tomchick,	Austrian,	Laborer,	30	S.			Dorrance,		Instantly killed by fall of middle rock at face of slope.
June 2	Daniel Griffiths,	American,	Bratticeman,	32	M.	1	1	South Wilkes-Barre No. 5.		Instantly killed by fall of top rock while walking on gangway road.
8	Daniel Soloman,	Assyrian,	Loader,	20	S.			South Wilkes-Barre No. 5.		Instantly killed by falling between two railroad cars. Outside.
	Michael Kervitski,	Polish,	Patcher,	18	S.			Maxwell No. 20,		Fatally burned by gas at foot of chamber on gangway road. Died June 9.
14	James Gildea,	Irish,	Fire-boss,	40	M.	1	7	Maxwell No. 20,		Suffocated in shelly coal while attempting to go through a small hole at face of heading to the next chamber.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 17	John Andrew,	Slavonian,	Laborer,	52	M.	1		Baltimore No. 5,	Luzerne,	Fatally injured by fall of top coal at face of gangway. Died on way to hospital.
July 12	Ignatz Gimnutski,	Russian,	Laborer,	29	M	1	1	Franklin,		Instantly killed by fall of top rock off rib at face of chamber.
17	Frank Rengha,	Russian,	Miner,	50	M.	1		Prospect,		Instantly killed by fall of bony top coal at face of chamber.
19	Michael Zamko,	Russian,	Laborer,	26	S.			Red Ash No. 2,		Fatally injured by fall of top rock on gangway road while cleaning a cave. Died the same day.
Aug. 4	Adam Ziemba,	Polish,	Miner,	39	M.	1	3	Baltimore No. 5,		Fatally injured by fall of top rock at face of counter gangway. Died the same day.
10	John Zaumalski,	Polish,	Miner,	46	M.	1	4	Franklin,		Fatally injured by premature blast at face of chamber. Died August 13.
Sept. 6	Anthony Pronitis,	Lithuanian,	Miner,	24	S.			Maxwell No. 20,		Instantly killed by being carried down the pitch with the coal when battery gave away at face of chamber. He was found at the lower battery a few hours later.
9	Anthony Vitsotski,	Polish,	Laborer,	26	S.			Hollenback No. 2,		Instantly killed by falling down shaft while getting off cage at surface landing.
13	Stanley Zeracka,	Polish,	Miner,	26	S.			Maxwell No. 20,		Fatally injured by an explosion of gas at face of chamber. Kushovich died at Emergency hospital in the mines and Zeracka died September 19 at City hospital.
	John Kushovich,	Polish,	Laborer,	24	S.					
14	Peter Valencavage,	Lithuanian,	Miner,	30	M.	1	2	Franklin,		Fatally burned by black powder while making a charge at box on gangway road. Died September 23.

Oct.	10	Tallie Jones,	American,	Driver,	35	S.			Stanton No. 7,		Fatally injured by being kicked on head by a mule on chamber road. Died October 13.
	12	Aleck Fach,	Russian,	Miner,	27	M.	1		Baltimore No. 5,		Fatally injured by premature blast at face of chamber. Died same day.
		George Kudock,	Polish,	Laborer,	21	S.			South Wilkes-Barre No. 5.		Instantly killed by fall of top coal at face of gangway.
	17	Phillip Obaldi,	Italian,	Miner,	26	S.			Prospect,		Fatally burned by powder at box in heading. Died October 25.
	19	John Seviski,	Polish,	Miner,	48	M.	1	3	Sugar Notch No 9,		Fatally injured by fall of top rock at face of chamber. Died the same day.
		George Koslowskie,	Polish,	Laborer,	27	S.			Stanton No. 7,		Instantly killed by a large piece of rock sliding down chamber and crushing him at battery.
Nov.	8	Charles Yuegelaitus,	Lithuanian,	Miner,	40	M.	1		Baltimore No. 5,	Luzerne,	Fatally injured by a piece of rock sliding off the gob and crushing his head. Died November 14.
	9	Anthony J. Caffery,	Irish,	Doorman,	50	M.	1	5	Maxwell No. 20,		Fatally injured by being struck by a trip of cars on slope. Died the same day.
	14	Stanley Slekeskie,	Polish,	Miner,	46	M.	1	3	Sugar Notch No. 9,		Fatally injured by an explosion of gas at face of heading. Died November 21.
		John Cominski,	Polish,	Laborer,	24	M.	1	1			
	15	James L. Simmons,	English,	Miner,	48	S.			South Wilkes-Barre No. 5.		Instantly killed by an explosion of gas at slush battery near gangway road.
Dec.	2	John Carmonovits,	Russian,	Laborer,	41	M.	1	3	Red Ash No. 2,		Fatally injured by fall of top rock on gangway road while cleaning a cave.
	4	Gregorus Smolinski,	Russian,	Laborer,	24	S.			Franklin,		Instantly killed by fall of top rock in chamber while walking up after a blast.
	29	Mike Covoloskie,	Lithuanian,	Laborer,	32	M.	1	3	South Wilkes-Barre No. 5.		Instantly killed by fall of top rock at face of chamber.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Russell Vandling,	American,	Electrician,	18	S.	Baltimore No. 5,		Right arm fractured above elbow by falling off scaffold on gangway.
14	Michael Smith,	Polish,	Miner,	38	M.	Maxwell No. 20,		Left leg fractured above knee by being struck by a piece of coal at face of chamber.
18	Mike Gasda,	Polish,	Laborer,	32	M.	Prospect,		Leg fractured and back bruised by being struck by a piece of coal at face of chamber.
23	Meredith Evans,	American,	Runner,	23	M.	Red Ash No. 2,		Right hip dislocated by being struck by car lever while putting derailed car on track on gangway road.
Feb. 6	Ulie Stetsco,	Polish,	Laborer,	23	S.	Sugar Notch No. 9,	Luzerne,	Collar bone broken by being struck by cage lever. Outside.
13	Michael Sheligo,	Polish,	Miner,	24	S.	Prospect,		Right leg fractured by flying coal from premature blast at face of chamber.
17	Charles Sharcady,	Slavonian,	Laborer,	28	M.	Red Ash No. 2,		Right ankle dislocated by being struck by a piece of frozen dirt in stripping. Outside.
18	George Kutney,	Polish,	Driver,	21	S.	Hollenback No. 2,		Right leg fractured above knee by being caught between cars on gangway road.
March 9	Frank Sabenskie,	Polish,	Dumper,	29	M.	Dorrance,		Right forearm fractured by fall of top rock at foot of chamber.
13	William Shulonski,	Lithuanian,	Miner,	29	M.	South Wilkes-Barre No. 5.		Ribs fractured and arm lacerated by being struck by derailed car on slope.
14	Francis Boyle,	American,	Footman,	39	M.	Dorrance,		Right hand taken off at wrist by car running over it while blocking car at foot of shaft.
16	Frank Kobolka,	Polish,	Laborer,	26	M.	Baltimore No. 5,		Left leg fractured by prop falling on it at face of chamber.

March	16	John Yetook,	Slavonian,	Footman,	27	M.	Prospect,	Luzerne,	Compound fracture of left arm by being struck at foot of shaft by a piece of coal that fell down shaft.
	22	Joseph Ogurkis,	Lithuanian,	Miner,	30	M.	South Wilkes-Barre No. 5.		Leg fractured below knee by fall of top coal at face of chamber.
April	7	John Sones,	Russian,	Headman,	21	S.	Dorrance,		Compound fracture of left leg by being caught between car and sheave on head of slope.
	13	Charles Pachucki,	Polish,	Miner,	42	M.	Maxwell No. 20,		Small bone of left ankle broken by falling down pitching chamber along with the coal from face of chamber.
	14	Peter Asavage,	Lithuanian,	Miner,	35	M.	South Wilkes-Barre No. 5.		Left leg fractured by fall of top rock at face of chamber.
	24	Mike Mattie,	Slavonian,	Driver,	21	S.	Prospect,		Leg fractured by being caught between stretcherstick and car bumper on gangway road.
	26	John Lenehan,	Irish,	Miner,	50	M.	Sugar Notch No. 9,		Right arm fractured by fall of top slate at face of chamber.
	27	Martin Kosha,	Austrian,	Laborer,	40	M.	Dorrance,		Compound fracture of right leg by derailed trip of cars at foot of slope.
May	3	William Viras,	Polish,	Loader,	20	S.	South Wilkes-Barre No. 5.		Right leg cut off at knee and toes of left foot cut off by railroad car running over him under the breaker. Outside.
	6	Peter Smith,	Russian,	Driver,	19	S.	Dorrance,		Right arm cut off above the elbow by falling under moving trip on gangway road.
	10	Dennis Casey,	Irish,	Doorboy,	16	S.	Sugar Notch No. 9,		Right forearm fractured by being caught between car and brattice on gangway road.
	20	John Krofchik,	Polish,	Miner,	57	M.	South Wilkes-Barre No. 5.		Compound fracture of right leg by runaway buggy at face of chamber.
	22	George Bednasek,	Polish,	Miner,	57	M.	South Wilkes-Barre No. 5.		Three fingers of left hand cut off at first joint by a piece of top rock falling on his hand at face of chamber.
June	5	Frank Quash,	Hungarian,	Miner,	38	S.	Red Ash No. 2,		Ribs fractured by a piece of rock falling on him in strippings. Outside.
	10	Joseph Papka,	Italian,	Driver,	18	S.	Prospect,		Right forearm fractured by falling under loaded car on gangway road.
	16	Peter Gerishconi,	American,	Headman,	17	S.	Stanton No. 7,		Right ankle fractured by being caught between two empty cars on top of car hoist at foot of shaft.
	19	Stephen Lynch,	American,	Driver,	17	S.	Baltimore No. 5,		Left arm fractured. While crossing a ditch he slipped and fell to the ground.
	20	William R. Price,	American,	Runner,	17	S.	Dorrance,		Two fingers and thumb of right hand cut off while blocking loaded car. Outside.
	24	George Novacko,	Polish,	Miner,	35	M.	Prospect,		Leg fractured by being struck by piece of coal that fell off rib at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
July 24	Joseph Koleskie, -----	American,--	Doorboy, ----------	18	S.	Dorrance, ----------	Luzerne, --------	Left leg fractured below knee by being struck by rope on slope.
27	Anthony Yantz, -----	Polish, ----	Miner, ----------	47	M.	Baltimore Tunnel, --		Ribs fractured by being struck by a piece of coal that fell off face of chamber.
Aug. 4	Peter Washik, --------	Polish, ----	Laborer, ----------	42	M.	Baltimore No. 5, --		Leg fractured by fall of top rock at face of chamber.
5	Alex Purcell, ---------	American,--	Timberman, -------	34	M.	South Wilkes-Barre No. 5.		Left arm fractured by being struck by a swinging pipe at charging station for air locomotive on gangway road.
11	Martin J. Walsh, ---	Irish,-------	Miner, ----------	62	W.	South Wilkes-Barre No. 5.		Skull fractured by premature blast at face of chamber.
17	Frank Talabor, ------	Lithuanian,	Miner, ----------	28	S.	Maxwell No. 20, ---		Right leg fractured below knee by being struck by a piece of coal at face of chamber.
Sept. 13	Peter Murray, -------	Russian, ---	Laborer, ----------	25	S.	Red Ash No. 2, ----		Ribs fractured by being caught between car and rib in chamber.
14	Joseph Buckler, ------	Lithuanian,	Laborer, ----------	22	S.	Franklin, ----------		Hands and face burned by an explosion of powder on gangway.
22	Mike Samnuski, ------	Polish, ----	Laborer, ----------	40	M.	Maxwell No. 20, ---		Right leg fractured and two ribs on right side fractured by fall of middle rock off rib at face of chamber.
Oct. 4	James Owens, ------	American,--	Driver, ----------	20	S.	South Wilkes-Barre No. 5.		Right collar bone fractured by falling off mule on gangway road while on his way to work.
12	Anthony Sincavage,--	Polish, ----	Laborer, ----------	29	W.	South Wilkes-Barre No. 5.		Left shoulder dislocated by being caught between car and door post near face of gangway road.
20	Stanley Peltz, --------	Russian, ---	Laborer, ----------	47	S.	Prospect, ----------		Right ankle fractured by being struck by flying coal from premature blast at face of chamber.

Nov.	9	William Kovoleski, ---	American,--	Patcher, ----------	18	S.	Maxwell No. 20, ---		Head seriously injured by being kicked by a mule on gangway road.
	14	Angel Kasus, ---------	Mexican, --	Footman, ---------	25	S.	Prospect, ----------		Left leg fractured by being caught between loaded cars at foot of shaft.
	18	Francis McGroaty, ---	American,--	Slatepicker, -------	16	S.	Baltimore No. 5, --		Left arm fractured by falling off banister in breaker. Outside.
	28	Andrew Gyaski, ------	Polish, ----	Runner, ----------	21	S.	Prospect, --- -------		Leg fractured below knee by being caught by crossing on slope rope at foot of slope.
	29	Peter Chomovu, -----	Polish, ----	Miner, ----------	42	S.	Baltimore No. 5, --		Left ankle fractured by fall of coal at face of chamber.
Dec.	7	Stanley Evouski, -----	Polish, ----	Miner, ----------	29	M.	Maxwell No. 20, ---	Luzerne, --------	Hands and face seriously injured by explosion of powder while pushing a cartridge of powder into hole at face of chamber.
	9	James Burke, --------	Irish,-------	Miner, ----------	43	M.	South Wilkes-Barre No. 5.		Right arm fractured, sight of left eye destroyed and nose broken by premature blast at face of chamber.
	15	Frank Kovack, ------	Polish, ----	Driver, ----------	19	S.	Franklin, ----------		Arm broken by being caught between bumper of loaded cars on gangway road at foot of slope.

CONDITION OF COLLIERIES

LEHIGH AND WILKES-BARRE COAL COMPANY

Hollenback No. 2, South Wilkes-Barre No. 5, Stanton No. 7, Sugar Notch No. 9, and Maxwell No. 20.—Ventilation, roads, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Prospect and Dorrance.—Ventilation, roads, drainage and condition as to safety, good.

Franklin.—Ventilation and condition as to safety, good; roads and drainage fair.

DELAWARE AND HUDSON COMPANY

Baltimore No. 5 and Baltimore Tunnel.—Ventilation, roads, drainage and condition as to safety, good.

RED ASH COAL COMPANY

Red Ash No. 2.—Ventilation, roads and drainage fair; condition as to safety, good.

PITTSTON COAL MINING COMPANY

Hadleigh.—Ventilation, roads and drainage fair; condition as to safety, good.

WILKES-BARRE ANTHRACITE COAL COMPANY

Hillman Vein.—Ventilation, roads, drainage and condition as to safety, good.

MINERS MILLS COAL MINING COMPANY

Healey.—Ventilation, roads and drainage fair; condition as to safety, good.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Hollenback No. 2 Colliery:

Outside.—Red Ash shaft hoisting engines and house, electric light plant, feed water heater system.

Inside.—Extended No. 5 tunnel to Ross No. 30 tunnel, Hillman to Kidney.

South Wilkes-Barre No. 5 Colliery:

Outside.—Wash house.

Inside.—12x16-inch hoisting engines provided for Nos. 12 and 13 slopes. Installed two compressed air locomotives. Extended No. 23 tunnel to Five Foot; No. 27 tunnel, Kidney to Abbott; No. 26 tunnel, Stanton to Five Foot.

Stanton No. 7 Colliery:

Outside.—New breaker; steel head frame for breaker hoist. Concrete fuel bin for boiler house. Steam heat in breaker. Dust-collecting system in breaker. Hopper and pocket to receive coal from No. 21. 240 H. P. boilers at Empire Shaft. Fuel conveyor and slush trough. Feed water system. Tower hoisting engine and house. Power house. Yard grading, tracks and car hoist. New steam lines in colliery yards and to Stanton air shaft.

Inside.—12x16-inch hoisting engines provided for Nos. 2 and 3 slopes. Installed two compressed air locomotives. Sump tunnel extended. Tunnel, 6th West to 6th East, No. 12 plane.

Sugar Notch No. 9 Colliery.—Inside: No. 20 tunnel extended to Hillman.

Maxwell No. 20 Colliery:

Outside.—Wash house.

Inside.—No. 27 tunnel, Baltimore to Baltimore; 12x16 inch hoisting engines provided for No. 4 plane. No. 28 tunnel, Hillman to Kidney.

LEHIGH VALLEY COAL COMPANY

Prospect Colliery:

Inside.—The work of securing the foot of Oakwood shaft with reinforced concrete and "I" beams, mentioned in last year's report, is still being carried on. Concrete motor house was built in the Red Ash vein. The Red Ash vein pump room was concreted and made fireproof. The inside barns are being reconstructed of fireproof material. A sub-slope off No. 10 slope in the Red Ash vein was started. Electric haulage was extended in the Upper Baltimore vein and a new motor installed. Diamond drill provings were made in the Midvale slope to prove the Abbott and Bowkley veins. Larger engines were installed on No. 23 slope, Five Foot vein, and a new fireproof engine house constructed. Work was commenced for the driving of a tunnel from the Prospect shaft level, Baltimore vein, to the Skidmore vein, for the purpose of landing the Oakwood-Skidmore coal at the Prospect landing.

Outside.—No. 22 slope, near the new machine shop, was concreted from the surface to the Abbott vein, a pair of engines installed and the crippled cars and supplies for Prospect inside are handled on this slope. A reinforced concrete conduit was constructed under the Lehigh Valley and Central Railroad tracks at the river pump house, and new water and steam pipes laid in the same. Extensvie repairs were made to the breaker and pockets, and new shakers were installed. A Welch overwinding device was installed in the Prospect shaft engine house. The work of installing an Ottumwa box car loader was nearly completed. The economizers at the boiler house were removed and a new feed water heater and stack installed. An 8-ton crane was erected in the yard near the breaker to handle supplies from railroad cars. The drilling of a new rope hole for No. 10 slope, to replace the hole now outside the yard near the Laurel Line tracks, was commenced.

Henry:

Inside.—All barns are being reconstructed with concrete to make them fireproof. No. 38 slope was driven in coal to mine small virgin area in the Lower Baltimore vein. The work under way in last year's report for the purpose of concentrating the hoisting of coal at the Red Ash shaft was completed. The construction of the central pumping plant in the Red Ash vein, mentioned in last year's report, is nearly completed; the pump room of concrete and "I" beam construction was finished and the second 18" and 28" and 48"x14"x36" Jeanesville Triplex expansion pump is now being installed. For the purpose of getting the Maltby water to these pumps, No. 36 Rock slope was driven in the Lower Baltimore to the Skidmore vein. The driving in the Skidmore vein toward the Maltby line was commenced and

when finished bore holes will be drilled from the Henry Skidmore to the Maltby Six Foot. At the New Skidmore landing in the Red Ash shaft, which is the point at which the Henry and Wyoming coal is concentrated, side walls with roof of reinforced concrete and "I" beams were constructed.

Outside.—Two Welch overwinding devices were installed in the Red Ash engine house. Plans were completed for the installation of an electric plant to light the inside and outside buildings. New conical drums with clutch device were placed on the Red Ash engines, in connection with the new haulage concentration. The old slope in the Hillman vein in the yard near Wyoming shaft was reopened to serve as an airway to the proposed new 20-foot fan to be installed; this will replace the two Hillman fans now outside the colliery yard. Test holes were put down in the vicinity of Anthracite Park, Dorranceton, to prove the rock cover for the Hillman and Bowkley veins. Test holes were also put down to prove the rock cover over the Five Foot vein near No. 8 outside slope and Henry shaft. A new feed water heater was installed. The Wyoming shaft engines were removed to Mineral Spring and a small pair temporarily installed, which will be removed on the completion of the Henry Baltimore barn, and the Wyoming shaft will be entirely abandoned.

Warrior Run:

Inside.—A second opening was driven from the first lift west, Hillman slope, to the surface. Tunnel was started in the basin in the Hillman vein to the Mills vein. The second opening Rock plane, mentioned in last year's report, 130 feet in length, was driven from the B to C vein in the robbing territory. A slant slope 350 feet long was driven off No. 2 slope in the B vein to mine the coal south of the fault. Work was started on the reconstruction of the inside mule barns to make them fireproof.

Outside.—Two air shafts 10 by 10 by 35 feet deep, one on each side of the Hillman slope, were sunk from the surface to the Hillman vein and concreted. A concrete air duct was constructed over the slope connecting these two shafts, and a 14-foot Guibal fan installed, the entire construction being of concrete. A concrete powder house was built. A new road was graded along the Lehigh Valley Railroad for hauling timber by team from the colliery yard to the Hillman slope.

Dorrance Colliery:

Inside.—All wood was removed from the engine house on the head of No. 7 Cooper slope and concrete retaining walls put up with roof of reinforced concrete and "I" beams. Diamond drill holes, mentioned in last year's report, from the face of the Bennett workings No. 6 extension slope, through the fault to prove the Cooper and Bennett veins on the other side, were completed. No. 21 tunnel, to shorten haulage in the Bennett and Cooper veins, mentioned in last year's report, was completed, total length 816 feet in the solid and 238 feet of bottom rock grading. The construction of side walls and concrete roof was continued at the head of No. 24 slope, Red Ash vein. The mule barns in the Hillman vein shaft, Baltimore vein, and Rock slope, Baltimore vein, were dismantled and are being reconstructed to make them fireproof. A new barn of fireproof construction is being built in the Red Ash vein. Electric haulage was extended in the Hillman, Baltimore and Red Ash veins, and several new motors installed. A

new Goyne pump was installed on No. 12 slope, Hillman vein, to handle silt water. A tunnel was started from the Cooper to the Lance vein, the Lance vein coal to be transported by motor to the new No. 21 tunnel mentioned above.

Outside.—Both silt holes near the breaker were reamed and made larger and terra cotta pipe inserted and cemented. Two Welch overwinding devices were installed, one on the Red Ash and one on the Hillman hoisting engines. Extensive repairs were made in the breaker and the breaker plane renewed.

Franklin Colliery:

Inside.—No. 27 tunnel, 222 feet long, was driven from the Bottom Five Foot Northward, cutting the Top Five Foot and Hillman veins. No. 28 tunnel, 264 feet long, was driven from the Sump vein to the Bottom of Five Foot in the Gin slope basin. Rock plane, 107 feet long, was driven as a second opening to No. 28 tunnel. No. 29 tunnel, 165 feet long, was driven from the Top Red Ash to Ross vein on No. 29 tunnel level. The 12x32x36 inch Scranton pump mentioned in last year's report was installed on No. 25 tunnel level, and a concrete pump-house is about two-thirds completed. A 2-inch drainage hole was drilled from Bottom to Top Red Ash to tap water in No. 8 slope. A 3-inch horizontal bore hole was drilled from the Skidmore vein on No. 26 tunnel level to the Baltimore vein, a distance of 340 feet, to tap water in the Long slope. The Baltimore vein at the foot of the Brown slope was re-opened to No. 5 tunnel, the tunnel cleaned and the roads laid to the Red Ash Vein. A manway for No. 10 slope was completed from the Skidmore vein to the surface. Work on the new concrete barn in the Rock slope was carried on and is nearly completed.

Outside.—A new pair of engines were installed on the Brown slope and a brick engine house erected. Old feed water heaters were taken out and a 2,000 H. P. Cochrane heater installed. A new shifting shanty was built. The Sump vein fan was dismantled and installed at the Warrior Run slope. Repairs to the dry side of breaker were completed and the old rolls replaced with new compound rolls. A new 40-foot track scale with new scale house was built and considerable grading done for the proposed rearranging of loaded car tracks. A 10-inch rope bore hole was drilled from the surface to the head of No. 9 slope. The 16x24-inch geared engines formerly at Coal Brook were installed on the surface and the 12x15-inch engines on the inside removed. Bore holes were put down from the surface to prove the Sump vein in the Brown slope district. The old boiler drain near the Long slope engine house was removed and a concrete arched culvert constructed and the yard considerably graded and improved in that vicinity. Concrete retaining wall at the foot of breaker plane was constructed. A new roof was placed over the breaker plane..

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held on April 4 and 5, in the Y. M. C. A. Building, Wilkes-Barre. The Board of Examiners was composed of Thomas H. Price, Mine Inspector; Morgan R. Morgans, Superintendent; and William Chappell and Patrick McGrane, Miners.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas I. Evans, Richard M. Evans, George Flecknoe, John T. George, Thomas M. Phillips, Wilkes-Barre; Tudor Roberts, Clarence O. Roberts, Ashley; William Cotter, Avoca; John Elbeson, Sugar Notch; Evan Morris, Rendham; Lewis S. Smith, Plainsville.

Assistant Mine Foremen

David R. Evans, Michael Garrity, John D. Jones, Reese Jones, William McCall, David J. Owens, James Summerson, Watkins Williams, Wilkes-Barre; Thomas F. Carr, Patrick J. Conway, John Munson, Sugar Notch; David James, Miners Mills; Daniel P. Jones, Parsons; Peter Linkiewicz, Joseph H. Tudgay, John Wordoski, Warrior Run; James Merino, Old Forge; William O. Morris, Plains; Frank Martin, Plymouth.

EIGHTH DISTRICT

LUZERNE AND LACKAWANNA COUNTIES

Wilkes-Barre, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith the Annual Report of the Eighth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,
THOMAS J. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	16
Number of mines,	30
Number of mines in operation,	25
Number of tons of coal shipped to market,	3,433,689
Number of tons used at mines for steam and heat,	456,073
Number of tons sold to local trade and used by employes,	76,695
Number of tons produced,	3,966,457
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	6,869
Number of persons employed outside,	2,159
Number of fatal accidents inside of mines,	42
Number of fatal accidents outside,	.....
Number of non-fatal accidents inside of mines,	70
Number of non-fatal accidents outside,	5
Number of tons of coal produced per fatal accident inside,	94,439
Number of persons employed per fatal accident inside,	164
Number of persons employed per fatal accident outside,	.....
Number of persons employed per non-fatal accident inside,	98
Number of persons employed per non-fatal accident outside,	432
Number of wives made widows,	24
Number of children made orphans,	61
Number of steam locomotives used inside of mines,	3
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	28
Number of electric motors used outside,	.....
Number of fans in use,	39
Number of furnaces in use,	.....
Number of gaseous mines in operation,	17
Number of non-gaseous mines in operation,	8
Number of new mines opened,	.....
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh Valley Coal Company,	1,716,543
Forty Fort Coal Company,	646,538
Kingston Coal Company,	584,567
Mt. Lookout Coal Company,	346,422
Plymouth Coal Company,	194,386
East Boston Coal Company,	165,772
Raub Coal Company,	145,197
Delaware, Lackawanna and Western Railroad Company,	94,894
Clear Spring Coal Company,	50,652
Rissinger Brothers and Company, Incorporated,	21,486
Total,	3,966,457

Production by Counties

Luzerne,	3,683,872
Lackawanna,	282,585
Total,	3,966,457

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Lehigh Valley Coal Co.,	15		15	19	2	21	114,436	90,345	2,279	730	3,009	152		120	365
Forty Fort Coal Co.,	4		4	19	1	20	161,634	34,028	1,262	326	1,588	316		67	326
Kingston Coal Co.,	8		8	7		7	73,071	83,510	883	335	1,218	110		126	
Mt. Lookout Coal Co.,	7		7	6	1	7	49,489	57,737	592	159	751	85		99	159
Plymouth Coal Co.,	1		1	8		8	194,386	24,298	354	116	470	354		44	
East Boston Coal Co.,	2		2	4	1	5	82,886	41,443	343	159	502	172		86	159
Raub Coal Co.,				5		5		29,039	325	115	440			65	
Delaware, Lackawanna and Western Railroad Co.,	3		3	1		1	31,631	94,894	254	39	293	85		254	
Clear Spring Coal Co.,	2		2				25,326		517	145	662	331			
Rissinger Brothers and Co., Incorporated,				1		1		21,486	60	35	95			60	
Totals and averages for district,	42		42	70	5	75	94,439	56,664	6,869	2,159	9,028	164		98	432

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,				1				1	1				3	7.15
Falls of slate,											1	1	2	4.76
Falls of roof,	1	1	1	4	7	1			3	1	1		20	47.62
Mine cars,		3		1	1				2		1	1	9	21.43
Explosions of gas,												1	1	2.38
Explosions of powder and dynamite,											2		2	4.76
Blasts, premature and otherwise,			1		1				1	1			4	9.52
Falling into shafts,			1										1	2.38
Totals,	1	4	3	6	9	1		1	7	2	5	3	42	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,		1				1		1	2		1		6	8.57
Falls of roof,	2	5		2	5		1	5	4	1	1	2	28	40.00
Mine cars,	5	2	1	1	1	1	1		1	1			14	20.00
Explosions of gas,	1				1		1	2				3	8	11.43
Explosions of powder and dynamite,								1					1	1.43
Blasts, premature and otherwise,	1		2		1		1		2		1	1	9	12.85
Machinery,				1									1	1.43
Struck by rope,						1							1	1.43
By falling,			1										1	1.43
Struck by door,					1								1	1.43
Totals,	9	8	4	4	9	3	4	9	9	2	3	6	70	100.00
Causes of Accidents Outside														
Machinery,		1			1								2	40.00
Struck by bar,							1						1	20.00
Struck by timber,	1												1	20.00
Scalded by steam,	1												1	20.00
Totals,	2	1			1		1						5	100.00
Grand totals inside and outside,	11	9	4	4	10	3	5	9	9	2	3	6	75	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	2	2	3	1	----	----	4	1	1	1	17
Miners' laborers,	----	2	1	4	3	----	----	1	1	1	1	----	14
Drivers and runners,	----	1	----	----	----	----	----	----	1	----	3	1	6
Timbermen,	----	----	----	----	----	----	----	----	1	----	----	----	1
Couplers,	----	----	----	----	1	----	----	----	----	----	----	----	1
Siltmen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Brakemen,	----	----	----	----	1	----	----	----	----	----	----	1	2
Totals,	1	4	3	6	9	1	----	1	7	2	5	3	42
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	4	2	1	2	----	3	6	4	1	1	3	30
Miners' laborers,	3	2	----	1	2	1	1	3	3	----	2	1	19
Drivers and runners,	1	2	2	----	2	2	----	----	1	----	----	2	12
Doorboys and helpers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Oilers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Pulleymen,	----	----	----	1	----	----	----	----	----	----	----	----	1
Topping bosses,	----	----	----	----	----	----	----	----	1	----	----	----	1
Footmen,	----	----	----	1	----	----	----	----	----	----	----	----	1
Inspectors,	----	----	----	----	1	----	----	----	----	----	----	----	1
Engineers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Siltmen,	----	----	----	----	2	----	----	----	----	----	----	----	2
Totals,	9	8	4	4	9	3	4	9	9	2	3	6	70
Outside													
Laborers,	----	----	----	----	1	----	1	----	----	----	----	----	2
Jigrunners,	----	1	----	----	----	----	----	----	----	----	----	----	1
Propmen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Ashmen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	2	1	----	----	1	----	1	----	----	----	----	----	5
Grand totals inside and outside,	11	9	4	4	10	3	5	9	9	2	3	6	75

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,					1								1
English,									1				1
Welsh,		1							1				2
German,				1									1
Polish,			1	2	3				3	2	1		12
Hungarian,												1	1
Italian,		1	1	1		1			2			1	7
Slavonian,					2						2	1	5
Lithuanian,	1	1	1	1	2			1			2		9
Russian,					1								1
Horwat,		1		1									2
Totals,	1	4	3	6	9	1		1	7	2	5	3	42

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	2	1	1		1						1	8
Welsh,					2								2
Irish,	1			1	1				1				4
German,									1				1
Polish,	1	3		1	3	1		3	3		3		18
Italian,	4	1	1	1			1	1	2			2	13
Slavonian,			2				1	1				2	6
Lithuanian,	3	2			2		2	3	1	2		1	16
Austrian,						1							1
Russian,					1			1	1				3
Horwat,		1			1		1						3
Totals,	11	9	4	4	10	3	5	9	9	2	3	6	75

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute circulating in the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh Valley Coal Co.															
Exeter Colliery:															
Red Ash Shaft,	Shafts,	Gaseous,	2 Fans,	20	6.8	5.10	76	2	Guibal,	Steam,	8	136,375	115,479	223,823	312
				20	6.8	5.10	76	1.5							
Pittston Shaft,			Fan,	20	5.11	5.11	60	1.5			5	146,115	121,172	162,399	102
*Knight Shaft (second opening),			Fan,	20	5.11	6.7	60	1.5			4	67,107	51,800	74,375	177
Seneca Colliery:															
Twin Shaft,	Shafts,	Gaseous,	Fan,	20	6.	6.	78	1.6	Guibal,	Steam,	7	95,300	83,600	110,360	258
*Coxey Shaft,			Fan,	20	6.	6.	80	1.2			5	84,900	62,400	93,500	110
Pittston Shaft,			Fan,	20	6.	6.	50	.8			1	35,900	18,700	36,400	24
Maltby Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	2 Fans,	25	8.11	6.10	72	3.			10	152,258	118,305	178,401	433
				20	5.11	5.8	82	2.5							
Mountain Tunnel,	Tunnel,	Non-gas.,	Fan,	6	1.6	1.4	180	.5	Guibal,	Steam,	3	40,165	22,285	43,300	21
Four Foot Slope,	Slope,	Non-gas.,	Fan,	12	4.	4.	82	.5			2	59,218	45,542	64,445	16
William A. Colliery:															
William A. Shaft,	Shaft,	Non-gas.	Fan,	18	5.8	5.9	75	.7	Guibal,	Steam,	4	62,000	60,500	63,000	80
*Lawrence Shaft,	Shaft,		Fan,	18	5.3	5.9	75	.8			6	59,500	57,000	59,800	150
*Babylon Shaft,	Shaft,		Fan,	20	5.3	5.9	80	1.3			4	89,700	87,500	93,000	132
No. 10 Tunnel,	Tunnel,		Fan,	6	3.	1.5	80	.3			1	18,500	17,000	19,500	31

*Idle. Mines marked idle are used for ventilation and emergency purposes only; no coal is hoisted from them.

Westmoreland Colliery:															
No. 1 Tunnel,	Tunnel,	Gaseous,	Fan,	20	6.	4.6	60	1.5	Guibal,	Steam,	5	136,000	125,000	147,000	244
Stevens Colliery:															
*No. 1 Shaft,	Shaft,	Gaseous,	Fan,	20	6.	7.	70	1	Guibal,	Steam,	3	96,100	64,350	97,825	160
No. 2 Shaft,	Shaft,	Gaseous,	Fan,	20	5.	6.	65	1	Guibal,	Steam,	4	94,000	65,175	95,160	65
Forty Fort Coal Co.															
Harry E. Colliery:															
No. 1 Shaft,	Shaft and Tunnel,	Gaseous,	3 Fans,	25	8.	6.83	75	2.2	Guibal,	Steam,	15	303,800	289,100	311,900	611
				15	4.5	4.5	85	1.							
				13.33	3.66	3.77	85	1.							
Forty Fort Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	2 Fans,	20	7.	6.	85	1.6	Guibal,	Steam,	8	166,400	152,800	191,500	651
				20	7.	6.66	85	1.6							
Kingston Coal Co.															
Kingston No. 4 Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	2 Fans,	25	8.	8.	70	2.5	Guibal,	Steam,	8	234,045	212,565	242,647	492
				25	8.	8.	74	2.6							
No. 4 Shaft,	Shaft,	Gaseous,	2 Fans,	25	8.	8.	78	2.	Guibal,	Steam,	8	139,250	121,410	158,600	381
				25	8.	8.	78	2.							
Mt. Lookout Coal Co.															
Mt. Lookout Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	2 Fans,	20	7.	6.83	82	2.	Guibal,	Steam,	11	150,500	140,100	156,200	582
				20	6.25	5.33	82	2.							
Plymouth Coal Co.															
Black Diamond Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	Fan,	20	6.	6.5	90	1.9	Vulcan,	Steam,	5	125,000	75,000	130,000	354
East Boston Coal Co.															
East Boston Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	2 Fans,	25	7.	7.	76	2.7	Guibal,	Steam,	9	165,500	132,300	167,800	342
				25	7.	7.	76	2.7							
Raub Coal Co.															
Louise Colliery:															
Mt. Thomas Tunnel,	Tunnel,	Non-gas.,	Fan,	13	5.	5.	120	.8	Guibal,	Steam,	2	30,000	34,000	36,000	150
Klondike Tunnel,	Tunnel,	Non-gas.,	Natural,	------	------	------	------	------	------	------	2	25,000	27,000	28,500	75
Waddells Shaft,	Shaft,	Non-gas.,	Natural,	------	------	------	------	------	------	------	3	35,000	37,000	40,000	100
Sand Slope,	Slope,														

*Idle. Mines marked idle are used for ventilation and emergency purposes only; no coal is hoisted from them.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Lackawanna and Western Railroad Co.															
Pettebone Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	Fan,	22	6.2	6.	120	1.7	Dickson,	Steam,	8	192,560	166,270	212,660	254
No. 2 Shaft,	Shaft,	Gaseous,	Fan,	35	10.1	9.1	52	2.3	Dickson,	Steam,					
Clear Spring Coal Co.															
Clear Spring Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	3 Fans,	24	8.	6.	60	2.5	Guibal,	Steam,	3	250,000	200,000	260,000	517
				20	6.	6.	60	1.							
				20	6.	6.	60	1.							
Rissinger Brothers and Co., Incorporated															
Troy Colliery:															
No. 1 Tunnel,,	Tunnel,	Non-gas.,	Fan,	14	3.5	3.	52	.5	Guibal,	Electricity,	2	13,000	13,000	14,300	60

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh Valley Coal Co.						
Exeter,	Luzerne,	F. M. Chase,	Wilkes-Barre,	Thomas Thomas,	Wilkes-Barre,	Lehigh Valley
Maltby,						
Westmoreland,						
William A.,	Lackawanna,	F. M. Chase,	Wilkes-Barre,	W. D. Owens,	Pittston,	Lehigh Valley
Seneca,	Luzerne,					
Stevens,						
Stevens Washery,						
Forty Fort Coal Co.						
Harry E.,	Luzerne,	S. M. Hemelright,	Scranton,	J. J. McCarthy,	Luzerne,	Lehigh Valley
Forty Fort,						
Kingston Coal Co.						
Kingston No. 4,	Luzerne,	F. E. Zerby,	Kingston,	Thos. H. Williams,	Kingston,	D. L. and W., D. and H., L. V. and Penna.
Mt. Lookout Coal Co.						
Mt. Lookout,	Luzerne,	F. H. Hemelright,	Scranton,	Seward Button,	Wyoming,	D. L. and W. and L. V.
Plymouth Coal Co.						
Black Diamond,	Luzerne,	G. S. Jones,	Luzerne,	G. S. Jones,	Luzerne,	D. L. and W. and L. V.
Black Diamond Washery,						
East Boston Coal Co.						
East Boston,	Luzerne,	W. T. Payne,	Kingston,	W. T. Payne,	Kingston,	D. L. and W. and L. V.
East Boston Washery,						
Raub Coal Co.						
Louise,	Luzerne,	Gwillym Edwards,	Luzerne,	Gwillym Edwards,	Luzerne,	Lehigh Valley
Delaware, Lackawanna and Western Railroad Co.						
Pettebone,	Luzerne,	R. A. Phillips,	Scranton,	H. G. Davis,	Kingston,	D. L. and W.

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Clear Spring Coal Co. Clear Spring,*	Luzerne,	J. L. Cake,	Pittston,	J. Paul Cake,	Pittston,	D. L. and W.
Rissinger Brothers and Co., Incorporated Troy,	Luzerne,	H. E. Rissinger,	Pittston,			Lehigh Valley

*Abandoned.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lehigh Valley Coal Co.													
Exeter,	Luzerne,	385,344	33,200	19,257	437,801	247	756	3	4	195,825	244,937	.....	120
Seneca,	Luzerne,	291,602	41,497	3,141	336,240	259	532	4	10	388,450	8,925	.....	89
Maltby,	Luzerne,	282,277	36,225	5,204	323,706	243	614	3	3	183,700	138,637	.....	93
William A.,	Lackawanna,	244,563	33,581	4,441	282,585	229	564	4	2	222,650	8,550	.....	83
Westmoreland,	Luzerne,	177,802	17,415	3,382	198,599	244	319	....	1	75,875	155,960	.....	39
Stevens,	Luzerne,	95,880	29,708	.....	125,588	*	210	1	1	25,625	49,441	.....	36
Stevens Washery,	Luzerne,	12,024	.....	.....	12,024	150	14	....	....	.....	.....	.....	.....
Totals,		1,489,492	191,626	35,425	1,716,543	.....	3,009	15	21	1,092,125	606,450	.....	460
Forty Fort Coal Co.													
Harry E.,	Luzerne,	293,648	43,254	3,066	339,968	253	781	2	10	245,000	92,510	.....	98
Forty Fort,	Luzerne,	272,418	30,474	3,678	306,570	239	807	2	10	248,775	106,030	.....	86
Totals,		566,066	73,728	6,744	646,538	.....	1,588	4	20	493,775	198,540	.....	184
Kingston Coal Co.													
Kingston No. 4,	Luzerne,	521,013	60,960	2,594	584,567	244	1,218	8	7	465,575	1,100	13,100	138
Mt. Lookout Coal Co.													
Mt. Lookout,	Luzerne,	304,824	36,500	5,098	346,422	245	751	7	7	257,575	163,099	.....	45

*Coal prepared at William A. breaker.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Plymouth Coal Co.													
Black Diamond,	Luzerne,	153,465	19,000	4,921	177,386	237	470	1	8	80,000	25,100	----------	56
Black Diamond Washery,	Luzerne,	----------	17,000	----------	17,000								
Totals,		153,465	36,000	4,921	194,386	----------	470	1	8	80,000	25,100	----------	56
East Boston Coal Co.													
East Boston,	Luzerne,	78,669	16,000	5,273	99,942	127	484	2	5	72,000	27,000	----------	59
East Boston Washery,	Luzerne,	53,404	12,000	426	65,830	290	18	----	----	----------	----------	----------	----
Totals,		132,073	28,000	5,699	165,772	----------	502	2	5	72,000	27,000	----------	59
Raub Coal Co.													
Louise,	Luzerne,	117,985	16,425	10,787	145,197	259	440	----	5	117,250	35,075	----------	40
Delaware, Lackawanna and Western Railroad Co.													
Pettebone,	Luzerne,	94,884	†	10	94,894	294	293	3	1	72,425	----------	34,233	27
Clear Spring Coal Co.													
Clear Spring,	Luzerne,	35,753	10,000	4,899	50,652	83	662	2	----	41,125	30,625	----------	54
Rissinger Brothers and Co., Incorporated													
Troy,	Luzerne,	18,134	2,834	518	21,486	288	95	----	1	12,450	7,000	----------	7
Grand totals,		5,433,689	456,073	76,695	3,966,457	----------	9,028	42	75	2,704,300	1,093,989	47,333	1,070

†16,561 tons from mines not in Eighth District.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Lehigh Valley Coal Co.,	Luzerne, Lackawanna,			53	10,625	10,625	6	5	15	126	9,867	34	24,750	18,150	7	2
Forty Fort Coal Co.,				15	4,055	4,055	2			38	3,430	7	6,100	3,500		2
Kingston Coal Co.,				16	4,200	4,200	1		4	28	4,200	8	8,600	5,100	4	2
Mt. Lookout Coal Co.,				10	2,600	2,600	1		8	40	2,100	3	6,750	2,900	3	3
Plymouth Coal Co.,		2	600	18	2,518	3,118	1			42	2,065	3	5,400	3,750	1	3
East Boston Coal Co.,	Luzerne,			8	1,952	1,952				27	1,258	2	5,000	3,500	2	2
Raub Coal Co.,				6	1,160	1,160	2			29	1,670	2	750	500		
Delaware, Lackawanna and Western Railroad Co.,				9	1,215	1,215			1	26	2,716	2	160	160	1	
Clear Spring Coal Co.,				13	2,463	2,463				15	865	6	5,000	5,000	1	
Rissinger Brothers and Co., Incorporated,				3	200	200				2	150	1	300	300		
Totals,		2	600	151	30,988	31,588	13	5	28	373	28,321	68	62,810	42,860	19	14

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Lehigh Valley Coal Co.,	Luzerne, Lackawanna,	11	35	....	1,075	443	303	30	45	147	190	2,279	....	5	76	114	27	40	17	451	730	3,009
Forty Fort Coal Co.,		4	....	12	530	323	176	38	18	142	19	1,262	1	2	22	35	90	40	5	131	326	1,588
Kingston Coal Co.,		2	5	10	310	200	150	19	13	34	140	883	1	1	43	37	....	32	4	217	335	1,218
Mt. Lookout Coal Co.,		2	....	4	269	172	28	15	9	38	5	592	1	1	16	24	7	29	3	78	159	751
Plymouth Coal Co.,		1	1	5	105	50	50	15	6	86	35	354	....	1	8	19	17	13	2	56	116	470
East Boston Coal Co.,	Luzerne,	1	2	3	79	63	74	18	9	81	13	343	1	1	7	13	35	15	4	83	159	502
Raub Coal Co.,		1	3	1	142	67	50	12	8	3	38	325	....	2	8	16	20	10	3	56	115	440
Delaware, Lackawanna and Western Railroad Co.,		1	....	3	66	66	15	4	2	2	95	254	....	1	4	11	....	....	1	22	39	293
Clear Spring Coal Co.,		1	2	4	219	134	46	10	5	73	23	517	1	2	6	20	43	7	4	62	145	662
Rissinger Brothers and Co., Incorporated,		1	....	....	23	21	10	.....	.....	5	.....	60	1	1	3	3	12	....	1	14	35	95
Totals,		25	48	42	2,818	1,539	902	161	115	661	558	6,869	6	17	193	292	251	186	44	1,170	2,150	9,023

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Lehigh Valley Coal Co.,	Lackawanna, Luzerne,	23	17	21	19	21	24	17	18	20	22	21	21	244
Forty Fort Coal Co.,	Luzerne,	22	18	22	20	23	23	15	18	21	22	21	21	246
Kingston Coal Co.,		25	19	21	23	25	22	14	13	13	22	24	23	244
Mt. Lookout Coal Co.,		20	15	24	19	21	21	21	18	22	22	21	21	245
Plymouth Coal Co.,		20	19	22	17	20	20	18	21	20	21	20	19	237
East Boston Coal Co.,		18	16	17	12	13	13	13	14	11				127
Raub Coal Co.,		22	22	23	19	23	21	18	22	23	23	22	21	259
Delaware, Lackawanna and Western Railroad Co.,		25	21	25	24	26	25	24	26	24	24	26	24	294
Clear Spring Coal Co.,		21	18	21	15	8								83
Rissinger Brothers and Co., Incorporated,		25	23	26	22	24	25	23	24	24	25	23	24	283

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 19	John Yacalavich,	Lithuanian,	Miner,	42	M.	1	4	Exeter,	Luzerne,	Instantly killed by fall of roof in face of chamber.
Feb. 1	John Pender,	Italian,	Miner,	31	M.	1	2	Mt. Lookout,	Luzerne,	Fatally injured by being struck by a car in face of chamber.
8	Frank Naravich,	Horwat	Laborer,	48	M.	1		East Boston,	Luzerne,	Fatally injured by being squeezed between car and door post on gangway, Red Ash vein.
	Gwyllim Johns,	Welsh,	Driver,	18	S.			Kingston No. 4,	Luzerne,	Fatally injured by being caught between car and rib in face of chamber.
15	Peter Lowolis,	Lithuanian,	Laborer,	30	M.	1		Pettebone,	Luzerne,	Instantly killed by fall of rock in dip gangway, Kidney vein.
Mar. 15	Edward Vardoskie,	Polish,	Laborer,	28	S.			Kingston No. 4,	Luzerne,	Instantly killed by fall of rock in fourth chamber from No. 6 slope, Cooper vein.
18	Carrol Carponavage,	Lithuanian,	Miner,	30	M.	1	2	Clear Spring,	Luzerne,	Instantly killed by falling down shaft in Pittston vein.
27	Lorenzo Cui,	Italian,	Miner,	34	M.	1	6	Forty Fort,	Luzerne,	Fatally injured by premature blast in face of chamber.
April 8	Stanley Garlesky,	Polish,	Laborer,	25	M.	1	1	Kingston No. 4,	Luzerne,	Fatally injured by fall of rock on No. 1 slope, Lance vein.
11	Peter Kowbeloskie,	Polish,	Miner,	40	M.	1	4	East Boston,	Luzerne,	Instantly killed by fall of top coal in face of chamber, Lance vein.
19	Steve Vuckmeen,	Horwat,	Laborer,	48	M.	1	5	Black Diamond,	Luzerne,	Instantly killed by fall of rock in face of chamber, Red Ash vein.
27	Patsy Sluvelile,	Italian,	Laborer,	21	S.			Mt. Lookout,	Luzerne,	Instantly killed by fall of rock in face of chamber, Ross vein.
	Charley Povatis,	Lithuanian,	Laborer,	45	M.	1	2	Mt. Lookout,	Luzerne,	Instantly killed by being squeezed between cars at foot of Red Ash shaft.
29	John Koval,	German,	Miner,	52	M.	1	1	Seneca,	Luzerne,	Fatally injured by fall of rock in chamber. Died May 4.
May 4	Felix Connolly,	American,	Brakeman,	21	S.			Seneca,	Luzerne,	Instantly killed by falling under loaded car at foot of shaft.

May	5	August Chesick,	Lithuanian,	Siltman,	27	S.			Exeter,	Luzerne,	Instantly killed by fall of rock while removing pipe on Red Ash silt line on gangway.
		James Couskie,	Polish,	Miner,	35	M.	1	4	Stevens,	Luzerne,	Instantly killed by premature blast in face of chamber, Marcy vein.
		Felix Voyta,	Russian,	Laborer,	34	M.	1	2	Kingston No. 4,	Luzerne,	Instantly killed by fall of rock in face of chamber, Ross vein.
	9	George Gomnock,	Slavonian,	Laborer,	26	M.	1		Maltby,	Luzerne,	Instantly killed by fall of rock in face of chamber, Marcy vein.
		George Ragi,	Slavonian,	Miner,	54	M.	1	1			
	11	John Lapinskie,	Polish,	Laborer,	27	S.			Mt. Lookout,	Luzerne,	Fatally injured by fall of rock at face of chamber, Marcy vein.
	13	Anthony Connoskie,	Polish,	Coupler,	18	S.			Kingston No. 4,	Luzerne,	Fatally injured by fall of rock on backswitch near foot of shaft.
	15	Charles Bushgonies,	Lithuanian,	Miner,	24	M.	1	2	Clear Spring,	Luzerne,	Instantly killed by fall of rock on gangway.
June	10	Tony Scalambino,	Italian,	Miner,	37	M.	1	3	William A.,	Lackawanna,	Instantly killed by fall of rock at face of chamber.
Aug.	3	George Ralis,	Lithuanian,	Laborer,	21	S.			Kingston No. 4,	Luzerne,	Fatally injured by fall of top coal on gangway.
Sept.	8	Lewis Mardi,	Italian,	Miner,	45	M.	1	7	William A.,	Lackawanna,	Fatally injured by fall of coal at face while robbing pillar, Clark vein.
	14	Julius Sabatine,	Italian,	Driver,	19	S.			William A.,	Lackawanna,	Fatally injured by falling under trip of cars on gangway. He was sliding one foot on the rail when he fell.
	18	Thomas Flanagan,	English,	Miner,	53	M.	1	2	Pettebone,	Luzerne,	Instantly killed by an explosion of blast at face of gangway, Ross vein.
	23	Alex Ripko,	Polish,	Miner,	27	M.	1	2	Mt. Lookout,	Luzerne,	Fatally injured by fall of rock on gangway. Died September 25.
	26	William Germara,	Polish,	Miner,	55	M.	1	3	Exeter,	Luzerne,	Instantly killed by fall of rock at face, while taking off a skip to make room for new No. 9 slope, Checker vein.
	29	Albert Harwosky,	Polish,	Laborer,	28	S.			Kingston No. 4,	Luzerne,	Instantly killed by fall of rock while cleaning up a fall on gangway, Red Ash vein.
		Evan Johns,	Welsh,	Timberman,	47	M.	1	2	Kingston No. 4,	Luzerne,	Instantly killed by cars on gangway. He was sitting on high side of road when the draw bar of first car broke and he was caught between cars and rib.
Oct.	26	Charles Musarskie,	Polish,	Laborer,	23	S.			Mt. Lookout,	Luzerne,	Fatally injured by blast in face of chamber. He fired the blast in the absence of the miner.
	31	Anthony Stainsock,	Polish,	Miner,	41	M.	1	3	Mt. Lookout,	Luzerne,	Fatally injured by fall of rock at face of chamber, Bottom Ross vein.
Nov.	7	Joseph Zupa,	Slavonian,	Driver,	19	S.			Forty Fort,	Luzerne,	Instantly killed by falling under trip of cars on gangway. He was riding on the bumper, sliding his foot on the rail.
	8	Mike Ondish,	Slavonian,	Runner,	25	S.			Harry E.,	Luzerne,	Fatally injured by an explosion of powder on gangway. Ondish died November 8, and Lynch November 21.
		Joseph Lynch,	Lithuanian,	Driver,	19	S.					

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 20	Steve Valapoolskie,	Lithuanian,	Laborer,		S.			Seneca,	Luzerne,	Fatally injured by fall of rock at face while watching the miner barring down the loose coal. Died December 13.
25	Martin Skidowsky,	Polish,	Miner,		M.	1	3	William A.,	Lackawanna,	Fatally injured by fall of slate at face of pillar. Died same day.
Dec. 3	Joseph Kefflick,	Hungarian,	Brakeman,		S.			Pettebone,	Luzerne,	Fatally injured by an explosion of gas at face of chamber. Died December 20.
23	Phillip Reatz,	Italian,	Miner,		S.			Seneca,	Luzerne,	Instantly killed by fall of slate at face of chamber.
27	George Subroskie,	Slavonian,	Driver,		S.			Maltby,	Luzerne,	Killed by falling under loaded car of water on slope.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Joseph Vurruch,	Italian,	Laborer,	41	M.	William A.,	Lackawanna,	Right arm injured and ankle sprained by fall of rock in face of chamber.
4	Alex Masonis,	Lithuanian,	Miner,	42	M.	Black Diamond,	Luzerne,	Ankle fractured by fall of rock at face of chamber.
5	Zini Lorenzo,	Italian,	Miner,	37	M.	Forty Fort,	Luzerne,	Face and hands burned by explosion of gas in cross-cut.
9	James May,	Irish,	Propman,	70	M.	Harry E.,	Luzerne,	Right arm fractured by prop falling on him. Outside.
17	John Barney,	Lithuanian,	Miner,	28	M.	Maltby,	Luzerne,	Severely injured by explosion of blast in face of chamber.
23	Charles Ross,	Italian,	Ashman,	22	S.	Stevens,	Luzerne,	Face and eye burned by the bursting of steam pipe. Outside.
24	William Herching,	Polish,	Laborer,	36	S.	Kingston No. 4,	Luzerne,	Leg fractured by being struck by loaded car on gangway.
26	Thomas Oram,	American,	Runner,	21	S.	East Boston,	Luzerne,	Ankle fractured by being struck by car that jumped the track on Red Ash plane.
27	Arch Sape,	American,	Engineer,	37	M.	Exeter,	Luzerne,	Injured by being squeezed between cars in Red Ash shaft.
30	Joseph Barenofakie,	Lithuanian,	Doorboy,	16	S.	Forty Fort,	Luzerne,	Hips squeezed by cars on gangway.
	Otagalo Vaghars,	Italian,	Laborer,	36	M.	Forty Fort,	Luzerne,	Top of finger taken off by draw-head on cars on gangway.
Feb. 6	George Bumba,	American,	Jig runner,	18	S.	Mt. Lookout,	Luzerne,	Right arm broken by being caught in the jig. Outside.
7	Centh Schaltskie,	Polish,	Miner,	38	S.	Black Diamond,	Luzerne,	Collar bone broken by being struck by cars on gangway. He stepped in front of cars.
8	Mike Bovesick,	Polish,	Laborer,	23	S.	Seneca,	Luzerne,	Leg broken and back injured by fall of roof at face of pillar.
13	Steve Frankins,	American,	Runner,	32	M.	Forty Fort,	Luzerne,	Thumb taken off by cars on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 14	Mike Patara,	Polish,	Miner,	28	M.	Maltby,	Luzerne,	Toe broken by fall of rock in face of chamber.
23	Anthony Broom,	Italian,	Laborer,	43	S.	Louise,	Luzerne,	Thigh broken by fall of rock in chamber.
	Charles Churneskie,	Horwat,	Runner,	20	S.	East Boston,	Luzerne,	Finger taken off by fall of coal on gangway.
28	John Regalis,	Lithuanian,	Miner,	27	M.	Forty Fort,	Luzerne,	Severely injured by fall of rock in face of chamber.
	Lewey Matasavage,	Lithuanian,	Miner,	32	M.			
March 8	John Hayden,	American,	Runner,	22	M.	Harry E.,	Luzerne,	Head injured by falling. He slipped on slope roller.
15	George Hallot,	Slavonian,	Miner,	35	S.	Black Diamond,	Luzerne,	Seriously injured by premature blast in face of chamber.
	Marine Skinalia,	Italian,	Miner,	40	M.	Seneca,	Luzerne,	Severely injured by premature blast in face of chamber.
16	Joseph Kucher,	Slavonian,	Driver,	18	S.	Harry E.,	Luzerne,	Top of two fingers taken off while spragging cars on gangway.
April 9	Joseph Lorri,	Italian,	Footman,	49	M.	Seneca,	Luzerne,	Small bone in leg broken by being struck by lever on engine.
10	Lewis Owens,	American,	Miner,	55	M.	Kingston No. 4,	Luzerne,	Slightly injured by fall of rock in face of chamber.
	Martin Maslosky,	Polish,	Laborer,	28	M.			Left shoulder broken by fall of rock in face of chamber.
19	Alex. Law,	Irish,	Pulleyman,	47	M.	Kingston No. 4,	Luzerne,	Left hand cut off and body bruised by cars on gangway.
May 5	William Herbert,	Welsh,	Siltman,	35	M.	Exeter,	Luzerne,	Injured by fall of rock while removing pipe of silt line on old gangway, Red Ash vein.
	Joseph Callahan,	Irish,	Siltman,	28	M.			
9	Mike Velovits,	Polish,	Miner,	37	M.	Louise,	Luzerne,	Head and back injured by fall of rock in face of chamber.
10	Andre Jubisti,	Polish,	Driver,	20	S.	Mt. Lookout,	Luzerne,	Arm fractured by being caught between timber and door on gangway.
18	George Backvar,	Horwat,	Laborer,	25	S.	East Boston,	Luzerne,	Foot bruised by fall of rock in face of chamber.

May	19	Frank Jones,	Welsh,	Inspector,	59	S.	Maltby,	Luzerne,	Head and back injured by fall of rock on gangway.
	23	Charles Brown,	Lithuanian,	Driver,	21	S.	Seneca,	Luzerne,	Shoulder fractured by being squeezed by cars on gangway.
	24	Joseph Evastock,	Lithuanian,	Miner,	25	M.	Seneca,	Luzerne,	Face injured by premature blast in face of chamber.
	29	John Sliskie,	Russian,	Laborer,	42	M.	William A.,	Lackawanna,	Right leg broken by chain on conveyor line. Outside.
		Frank Grabwell,	Polish,	Laborer,	32	M.	Seneca,	Luzerne,	Hands and face burned by an explosion of gas on gangway.
June	6	John Kruko,	American,	Driver,	19	S.	Seneca,	Luzerne,	Small bone in foot broken by being struck by rope on slope.
	10	Clemment Snyder,	Polish,	Runner,	18	S.	Kingston No. 4,	Luzerne,	Foot badly bruised by falling under cars on gangway.
	20	John Burkish,	Austrian,	Laborer,	25	S.	Black Diamond,	Luzerne,	Ankle fractured by fall of coal at face of chamber.
July	3	Mike Grubitch,	Horwat,	Laborer,	25	S.	Black Diamond,	Luzerne,	Pelvis broken by being squeezed between car and prop on gangway.
	6	Matt Yourkins,	Lithuanian,	Miner,	52	M.	Pettebone,	Luzerne,	Compound fracture of leg and body bruised by explosion of blast in face of chamber.
	10	Vielle Guenara,	Italian,	Miner,	53	M.	Harry E.,	Luzerne,	Ankle fractured by fall of rock at face of chamber.
	12	Peter Donavitz,	Slavonian,	Laborer,	50	M.	East Boston,	Luzerne,	Leg fractured by being struck by bar while unloading machinery. Outside.
	28	Felix Gehsibis,	Lithuanian,	Miner,	37	M.	Forty Fort,	Luzerne,	Face and hands burned by explosion of gas at face of chamber.
Aug.	2	Adam Beosky,	Polish,	Miner,	40	M.	Kingston No. 4,	Luzerne,	Rib fractured and body bruised by fall of rock at face of gangway.
	3	Dominick Witkofsky,	Lithuanian,	Miner,	38	M.	Kingston No. 4,	Luzerne,	Leg fractured by fall of rock on gangway.
	18	Martin Adamavitch,	Lithuanian,	Miner,	39	S.	Seneca,	Luzerne,	Severely injured by fall of roof at face of chamber.
		William Telitsko,	Lithuanian,	Laborer,	28	M.			
	25	John Ronoskie,	Polish,	Miner,	39	M.	Mt. Lookout,	Luzerne,	Compound fracture of right leg by fall of rock at face of chamber.
	26	Anthony Carbonis,	Russian,	Laborer,	18	S.	Black Diamond,	Luzerne,	Leg fractured by fall of coal at face of chamber.
		Sam Pesano,	Italian,	Miner,	54	M.	Seneca,	Luzerne,	Face and hands burned by explosion of powder at face of chamber.
	28	Joe Capack,	Slavonian,	Miner,	36	M.	Forty Fort,	Luzerne,	Face and hands slightly burned by explosion of gas at face of chamber.
		Stanley Cronouskie,	Polish,	Laborer,	25	M.			
Sept.	15	Peter Cleshifskie,	Polish,	Laborer,	27	S.	Mt. Lookout,	Luzerne,	Leg fractured by fall of rock at face of chamber.
		Frank Rosnick,	German,	Driver,	19	S.	Harry E.,	Luzerne,	Leg fractured by being struck by cars on plane.
	18	Anglo Frizzi,	Italian,	Miner,	31	S.	Mt. Lookout,	Luzerne,	Leg fractured above knee by fall of rock in cross-cut.
		George Buggs,	Polish,	Laborer,	35	M.	Black Diamond,	Luzerne,	Pelvis broken by fall of coal at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Occupation		Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 19	John Cohalen,	Irish,	Topping boss,	40	M.	Harry E.,	Luzerne,	Left leg broken by being struck by flying coal from blast in face of chamber.
20	George Hustotte,	Russian,	Miner,	39	M.	East Boston,	Luzerne,	Arm fractured by being struck by flying coal from blast at face of chamber.
23	Lenorda Pugleane,	Italian,	Miner,	28	S.	Mt. Lookout,	Luzerne,	Compound fracture of right arm by fall of coal at face of chamber.
26	Barney Muskey,	Polish,	Laborer,	23	S.	Exeter,	Luzerne,	Arm fractured by fall of rock at face of skip, Checker vein.
28	Adam Gornish,	Lithuanian,	Miner,	41	M.	Mt. Lookout,	Luzerne,	Compound fracture of left leg by fall of rock at face of chamber.
Oct. 9	Charles Sevreck,	Lithuanian,	Miner,	40	M.	Troy,	Luzerne,	Rib broken by fall of rock at face of chamber.
12	Peter Butkie,	Lithuanian,	Oiler,	27	M.	Harry E.,	Luzerne,	Left leg broken by being squeezed between cars on gangway.
Nov. 7	Alex Marcofskie,	Polish,	Laborer,	28	S.	Louise,	Luzerne,	Leg broken by fall of rock in face of gangway.
	Joseph Yeskofskie,	Polish,	Miner,	40	M.	Louise,	Luzerne,	Two ribs broken by flying coal from blast at face of chamber.
22	Stanley Shamper,	Polish,	Laborer,	25	S.	Louise,	Luzerne,	Injured by fall of coal at face of gangway.
Dec. 6	Walanti Barbiney,	Italian,	Laborer,	39	S.	Forty Fort,	Luzerne,	Leg broken by small piece of rock falling from side of rib in chamber.
11	John Mitchel,	Slavonian,	Miner,	31	M.	Black Diamond,	Luzerne,	Sprain and contusion of back by fall of rock in face of chamber.
12	Anthony Romatus,	Lithuanian,	Miner,	47	M.	Harry E.,	Luzerne,	Face, hands and neck burned by explosion of gas in chamber.
	Thomas Benson,	American,	Runner,	21	S.			
	Joseph Kuloskie,	Slavonian,	Driver,	18	S.			
28	Julio Vietoskie,	Italian,	Miner,	43	M.	Westmoreland,	Luzerne,	Leg fractured by flying coal from blast at face of chamber.

CONDITION OF COLLIERIES

LEHIGH VALLEY COAL COMPANY

Exeter, Seneca and Maltby.—Ventilation, drainage and general condition as to safety, good.

William A.—Ventilation good; drainage and general condition as to safety, fair. The principal work done at these mines is robbing the pillars, and considering the conditions, they are as safe as could be expected.

Westmoreland and Stevens.—Ventilation, drainage and condition as to safety, good.

FORTY FORT COAL COMPANY

Harry E. and Forty Fort.—Ventilation, drainage and general condition as to safety, good.

KINGSTON COAL COMPANY

Kingston No. 4.—Ventilation, drainage and general condition as to safety, good.

MT. LOOKOUT COAL COMPANY

Mt. Lookout.—Ventilation, drainage and general condition as to safety, good.

PLYMOUTH COAL COMPANY

Black Diamond.—Ventilation and drainage fair, condition as to safety, good.

EAST BOSTON COAL COMPANY

East Boston.—Ventilation and drainage fair, condition as to safety, good.

RAUB COAL COMPANY

Louise.—Ventilation, drainage and condition as to safety, fair.

CLEAR SPRING COAL COMPANY

Clear Spring.—Operations suspended indefinitely.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone.—Ventilation, drainage and general condition as to safety, good.

RISSINGER BROTHERS AND COMPANY, INCORPORATED

Troy.—Ventilation, drainage and condition as to safety, fair.

IMPROVEMENTS

LEHIGH VALLEY COAL COMPANY

Exeter Colliery.—Inside: The balance plane in the Red Ash vein, mentioned in last year's report, was completed and put in operation. The Red Ash motor haulage was extended 800 feet to the Northeast territory. Five inside bore holes were drilled, two for drainage from the Top to Bottom Red Ash, and three to prove the Marcy vein north

of the fault from the Pittston to the Marcy vein. The mule barns in the Red Ash and Checker veins and the part of the Marcy barn of wood construction are being reconstructed of concrete. No. 3 tunnel, about 100 feet long, was driven through the fault in the Checker vein in the vicinity of Knight shaft to open up the virgin territory beyond the fault. To handle this coal a new slope was driven in the Checker vein and new engine installed. A tunnel, 150 feet long, was driven, and 250 feet of bottom rock was graded to mine the Marcy vein north of the fault. A 15 degree balance plane was driven from the Bottom to Top Red Ash vein to shorten the mule haulage in the Top Red Ash vein, the coal to be handled by motor in the Bottom Red Ash. Work was started to develop the Clark vein in Red Ash shaft, and two rock planes will be driven, one on 15 degrees to serve as the balance plane to drop the coal to the Red Ash, and the other on 30 degrees to serve as a second opening. The 30 degree plane, about 61 feet long, has been completed. The work of installing the air motor haulage in the Marcy vein, mentioned in last year's report, was completed.

Outside: About 30 test holes were put down to prove the Checker vein rock cover in the northwest and southeast sections. Holes are now being drilled in the northeast section along the Stevens Colliery line. Work was commenced on the installation of a new 463 H. P. Stirling boiler and the same is nearly completed. A Welch overwinding device was installed in the Red Ash engine house. New drums for the first motion engines at the Pittston Shaft are on the ground, and will be installed shortly. Extensive repairs were made to the breaker; breaker pockets were renewed and the old circular screens are being replaced with shakers; moving tables are now being installed and other improvements are being made to handle the preparation of coal. Terra cotta pipe was laid from the Red Ash shaft to the main ditch to convey the Red Ash water. A new flume was constructed along the Lehigh Valley Railroad to carry this water.

Seneca Colliery.—Inside: In the Pittston vein, No. 13 rock tunnel 300 feet long was driven through fault for development, and No. 10 slope was extended through coal to the entrance of this tunnel.

In the Marcy vein a ditch 400 feet long was started from the Basin in Scovill's Island, which will drain the water and supplant 3 electric pumps. This water will pass through a new tunnel 400 feet long through an anticlinal and run by gravity to the sump of No. 5 pumping station. A concrete steel pump house was built, with a 2-ton traveling crane, and a 13 by 21 by 34 by 16 by 36-inch pump was installed, completing Marcy pumping station. New head was driven for No. 5 slope facilitating the handling of coal from this slope. Telephones were installed at various points inside and outside the mines.

Outside: Commenced work on the erection of a 3,000 H. P. boiler plant. A new carpenter and blacksmith shop built and equipped with the latest machinery. Fireproof light and loaded scale office erected and put in use. A branch of the company's mine rescue station was established here and a brick building erected for it. Complete rescue apparatus has been purchased and is in working order, subject to call from any colliery in the Division. Conveyor line built to handle fuel from railroad tracks to old boiler plant. A 17-inch bore hole was started from surface to Marcy vein, through which the new pump in No. 5 slope will deliver water to the surface.

Maltby Colliery.—Inside: No. 7 slant slope was extended in the Marcy vein. A 30-degree rock plane, 206 feet long, was driven from the Eleven Foot to the Six Foot, as a second opening to the No. 8 slope, mentioned in last year's report. No. 9 slope in the Marcy vein was extended and graded. No. 10 slope was driven in the Six Foot. No. 11 slope in the Marcy vein was started. Three small single drum electric hoists were installed, also two 8-inch by 9-inch electric triplex pumps. Plans were completed for a 30-degree rock plane from the Ross vein to the Nine Foot vein, No. 6 slope. A new balance plane was installed in the Six Foot vein, river district, which released one motor taken to the Eleven Foot. The reopening of roads in the Eleven-Foot, Six-Foot and Four-Foot veins was started to rob pillars northwest of the shaft. A 4-inch bore hole was drilled from surface to the old plane, which broke into the sand years ago, and cement was pumped through this hole in the hope of sealing off this plane. It is intended to carry on this work by drilling more holes to fill, if possible, the old plane with cement. New roads were driven in the Marcy vein and the electric haulage extended so as to concentrate the coal east of the slope to one lift. The mule barn in the Marcy vein is being reconstructed of concrete to make it fireproof.

Outside: Drilling operations were carried on in the river district to prove the Four-Foot vein rock cover. New engines were installed on the head of the outside refuse plane to handle breaker refuse and hoist coal from the Four-Foot slope. Extensive repairs were made in the breaker and new rolls were put in. The colliery fence was extended. Feed water regulators were installed at the boiler plant. One Welch overwinding device was installed in the shaft engine house.

William A. Colliery.—Inside: The following planes have been driven and put in operation: One 500 feet long in the Clark vein; one 800 feet long in the Marcy vein; and one 1,800 feet long in the Fifth vein. These planes are operated by engines located on the surface.

Outside: A conveyor 270 feet long, was built to handle ashes from boiler house. A new boiler house was erected at Campbells Ledge, containing two 72-inch by 18-foot boilers, to provide steam for engines on Marcy, Clark and Red Ash Planes. Two engines (one 13 by 18 inches and one 14 by 18 inches), were installed, and two rope holes put down, one to Marcy vein and another to Clark vein. A 14 by 18-inch two-drum engine was installed and rope hole put down to Red Ash vein.

Westmoreland Colliery.—Inside: The main haulage road in the Pittston vein, south of the Mt. Lookout anticlinal was extended. No. 7 tunnel, 250 feet long, was driven through the fault in the Marcy vein to mine the coal south of the Mt. Lookout anticlinal. In addition to this 220 feet of bottom rock was blown on the motor road outside of this tunnel. No. 4 rock plane, 63 feet long, was also driven through the fault as a second opening to the tunnel mentioned above. The foot of the main slope in the Marcy vein was graded to facilitate the handling of loaded and empty cars. Work was also commenced to reopen the old gangways at the head of Six-Foot slope to rob pillars east and west of the slope. One new 7-inch by 9-inch triplex electric pump was installed in the Six-Foot vein. The main tunnel was ex-

tended 27 feet and the head of the Marcy slope graded, in connection with the work of concentrating the hoisting of all the coal up the Marcy slope.

Outside: A 10-inch silt hole lined with terra cotta pipe was put down from surface to the Marcy vein, this hole to serve in case of emergency. A pair of 28-inch by 48-inch first motion engines was installed on the surface the rope operating through a new 8-inch bore hole put down on the mountain side from the surface to the head of the Marcy slope. These engines are housed in a new building of tile construction and steam is carried to these engines from the boiler house through a new 8-inch steam line 550 feet long. Test holes were put down on the Reynolds property to prove the Six-Foot vein rock cover. Extensive repairs were made to the breaker and the pockets were renewed. A new office building, containing rooms for outside foremen, colliery clerks and shipper, and with warehouse and oilhouse attached, all of tile construction, was erected and the old frame office building dismantled. 500 feet concrete retaining wall put up, 200 feet of same being along loaded track leading to the breaker plane, and the balance 50 feet and 250 feet on the west and east side of breaker respectively. A new concrete fanhouse with new engine and 20-foot fan was installed to replace the fan of wooden construction. 375 feet of 18-inch terra cotta pipe laid to carry the water from the Marcy pump discharge hole to the creek. A new 18-inch by 36-inch breaker engine was installed.

Stevens Colliery.—Inside: Rock cut was made for handling coal from Marcy vein to shaft. Motor road was completed in upper lift of Marcy vein and now handles coal directly to the shaft, which was previously done by a slope. Top Marcy vein gangways are being driven ahead rapidly and chambers worked from them.

KINGSTON COAL COMPANY

Kingston No. 4 Colliery.—Inside: Two tunnels have been driven in Orchard vein through roll and Lance vein to Orchard vein, a distance of 1,500 feet. Three new overcasts have been built in the Orchard vein of steel and concrete. Two new concrete barns have been built, one at Orchard vein and one at Cooper vein, complete with baths. One Scranton 14 by 8 by 18-inch steam pump has been installed for ash water purposes.

In No. 4 shaft, a new condensing house and Scranton duplex condensing pump, 14 by 8 by 18 inches have been added to No. 4 shaft pump house, and pump house has been rebuilt with steel and concrete timbers. A new quintuplex pump, a duplicate of the one installed in 1910, has been erected at the foot of Red Ash slope, and pump room completed of steel and concrete. 300 feet of the main slope above pump house has been timbered with steel timbers and concrete retaining walls. Two new overcasts have been built of concrete and steel in the Ross vein. New concrete barn consisting of fifty stalls have been built in the Red Ash vein, complete with mule baths. A rock slope 250 feet long has been driven through the roll in the Ross vein. Silting has been carried on very extensively in the southern and middle districts of the Ross and Red Ash veins during the year. Nos. 1 and 4 shaft hoisting engines have been equipped with the Welch improved overwinding device, steam reverse and brake.

The breaker has been wired and lighted by electricity. A Cross Compound Corliss valve movement Ingersoll-Rand air compressor 20 by 38 by 30 by 33 inches, was installed. A new brick central shipping station was built. A new underground fuel conveyor line was built from breaker to boiler house. An additional track was built for No. 4 loaded and supply. Two new powder houses were constructed.

The system of night schools has been continued during the year, also the school for the instruction of "First Aid to the Injured Corps." The general appearance of the property has been considerably improved during the year, a number of miners' dwelling houses having been enlarged and sanitary sewerage installed.

PLYMOUTH COAL COMPANY

Black Diamond Colliery.—Inside: Opened Eleven-Foot or Marcy vein in shaft. Built concrete mule stable in Cooper vein, concrete and steel stable in Ross vein and Red Ash vein; also concrete and steel engine room head of Ross slope. Drove a rock tunnel from Cooper vein to Lance vein, 150 feet, and drove a rock slope from Lance vein to Cooper vein 150 feet; also drove a rock tunnel from Red Ash vein to "A" vein 50 feet.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone Colliery.—Inside: A rock plane has been driven on a 15 degree pitch from the Hillman to Kidney vein, No. 2 shaft, which is now about completed, and a second opening for the same has been driven to the coal, but connections have not as yet been made. The work of sinking No. 11 slope, from Bennett to Red Ash vein, is under way. The Ross vein in No. 1 and No. 2 shafts has been opened and connected to shaft airway. The work of rebuilding mule barns, pump rooms, engine house, etc., with incombustible material, is under way, and will soon be completed.

MINE FOREMEN'S EXAMINATIONS

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held at Kingston, April 4 and 5. The Board of Examiners was composed of P. M. Boyle, Mine Inspector, Kingston; James J. McCarthy, Superintendent, Luzerne; Harry Jones, Miner, Wyoming; and Edward Carlin, Miner, Luzerne.

The following applicants passed a satisfactory examination and were granted certificates:

Mine Foremen

Michael H. Corgan, Luzerne; William Michael Toner, Plymouth; Frank J. Carter, Nicholas Cooke, Forty Fort; John Lewis Williams, David Richards, David William Owens, West Pittston; John McHugh, Edwardsville.

Assistant Mine Foremen

Thomas Francis Levin, Maltby; William L. Geyer, Dorranceton; William Coutts, David Coutts, Forty Fort; Peter Berry, Pringle; Philip Williams, Charles W. Thomas, John Williamson, John M. Williams, Jr., Wyoming.

NINTH DISTRICT

LUZERNE COUNTY

Wilkes-Barre, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Ninth Anthracite District, for the year ending December 31, 1911.

The report contains the statistical information required by law, a brief description of fatal and non-fatal accidents, and a brief description of the general condition of the mines.

Respectfully submitted,

D. T. DAVIS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	15
Number of mines,	32
Number of mines in operation,	32
Number of tons of coal shipped to market,	5,175,102
Number of tons used at mines for steam and heat,	418,858
Number of tons sold to local trade and used by employes,	200,177
Number of tons produced,	5,794,137
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	7,849
Number of persons employed outside,	2,373
Number of fatal accidents inside of mines,	37
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,	43
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	156,598
Number of persons employed per fatal accident inside,	212
Number of persons employed per fatal accident outside,	396
Number of persons employed per non-fatal accident inside,	183
Number of persons employed per non-fatal accident outside,	791
Number of wives made widows,	25
Number of children made orphans,	65
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	14
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	22
Number of electric motors used outside,	.....
Number of fans in use,	38
Number of furnaces in use,	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	13
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Kingston Coal Company,	1,631,026
Delaware and Hudson Company,	1,348,133
Lehigh and Wilkes-Barre Coal Company,	1,158,070
Delaware, Lackawanna and Western Railroad Company,	991,819
Parrish Coal Company,	330,435
Plymouth Coal Company,	159,721
George F. Lee Coal Company,	98,770
West Nanticoke Coal Company,	49,668
Bright Coal Company,	16,495
Dunn Coal Company,	10,000
Total,	5,794,137

Production by Counties

Luzerne,	5,794,137

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Kingston Coal Co.,	5	1	6	6	-------	6	326,205	271,838	1,584	532	2,116	317	532	264	-------
Delaware and Hudson Co.,	14	1	15	10	2	12	96,295	134,813	1,856	597	2,453	133	597	186	299
Lehigh and Wilkes-Barre Coal Co.,*	9	-------	9	14	1	15	128,674	82,719	1,441	377	1,818	160	-------	103	377
Delaware, Lackawanna and Western Railroad Co.,†	5	2	7	3	-------	3	198,364	330,606	1,665	320	1,985	333	160	555	-------
Parrish Coal Co.,	4	-------	4	8	-------	8	82,609	41,304	778	273	1,051	195	-------	97	-------
Plymouth Coal Co.,	-------	-------	-------	1	-------	1	-------	159,721	256	132	388	-------	-------	256	-------
George F. Lee Coal Co.,	-------	2	2	-------	-------	-------	-------	-------	236	77	313	-------	39	-------	-------
Bright Coal Co.,	-------	-------	-------	1	-------	1	-------	16,495	23	15	38	-------	-------	23	-------
Miscellaneous Companies,	-------	-------	-------	-------	-------	-------	-------	-------	10	50	60	-------	-------	-------	-------
Totals and averages for district,	37	6	43	43	3	46	156,598	134,747	7,849	2,373	10,222	212	396	183	791

*Inman No. 21 (sinking shaft) not included.
†Loomis (sinking shaft) not included.

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	1	1	----	1	----	----	----	3	1	----	7	18.92
Falls of roof,	----	----	1	----	----	----	----	----	1	2	----	----	4	10.81
Mine cars,	1	1	2	----	----	1	1	----	1	----	----	2	9	24.33
Explosions of gas,	----	----	----	----	1	----	----	----	----	----	----	----	1	2.70
Suffocation by gas, etc.,	----	----	----	----	5	----	----	----	----	----	----	----	5	13.51
Explosions of powder and dynamite,	----	----	2	----	----	----	----	----	----	----	----	----	2	5.41
Blasts, premature and otherwise,	----	----	----	----	2	----	1	----	2	----	----	----	5	13.51
Falling into shafts,	----	1	----	1	----	----	1	----	----	----	1	----	4	10.81
Totals,	1	2	6	2	8	2	3	----	4	5	2	2	37	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	1	----	1	16.66
Machinery,	----	----	----	----	1	----	----	----	----	----	----	----	1	16.67
Suffocation in chutes, etc.,	1	----	----	----	----	----	----	----	----	----	----	----	1	16.67
By falling,	----	----	----	----	1	----	2	----	----	----	----	----	3	50.00
Totals,	1	----	----	----	2	----	2	----	----	----	1	----	6	100.00
Grand totals inside and outside,	2	2	6	2	10	2	5	----	4	5	3	2	43	----

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	----	1	----	----	----	----	----	----	1	1	----	5	11.63
Falls of slate,	----	----	----	----	----	----	----	----	----	1	----	----	1	2.33
Falls of roof,	----	1	----	----	1	----	----	----	1	----	----	1	4	9.30
Mine cars,	1	----	----	----	----	1	1	1	----	2	1	3	10	23.26
Explosions of gas,	1	----	1	2	----	----	----	----	----	1	2	----	7	16.28
Blasts, premature and otherwise,	----	----	----	----	----	1	----	----	4	1	----	----	6	13.95
Kicked by mules,	1	----	----	----	----	----	----	----	----	----	----	----	1	2.33
Struck by timber,	----	----	1	----	1	----	----	----	----	----	----	----	2	4.65
Struck by pole,	----	----	1	----	----	----	----	----	----	----	----	----	1	2.33
Struck by piece of coal,	----	----	----	----	2	----	----	----	----	1	----	----	3	6.97
Struck by piece of steel,	----	----	----	----	----	----	----	----	----	----	1	----	1	2.33
By falling,	----	----	----	----	----	----	----	----	----	----	----	1	1	2.32
Struck by rope,	----	----	----	----	----	----	----	----	----	----	----	1	1	2.32
Totals,	5	1	4	2	4	2	1	1	5	7	5	6	43	100.00
Causes of Accidents Outside														
Machinery,	----	1	----	----	----	----	----	----	----	----	----	1	2	66.67
Struck by bar,	----	----	----	----	----	----	----	----	1	----	----	----	1	33.33
Totals,	----	1	----	----	----	----	----	----	1	----	----	1	3	100.00
Grand totals inside and outside,	5	2	4	2	4	2	1	1	6	7	5	7	46	----

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	----	2	1	5	----	1	----	3	3	1	----	17
Miners' laborers,	----	----	3	1	1	1	2	----	1	2	----	----	11
Drivers and runners,	----	1	1	----	1	----	----	----	----	----	----	2	5
Doorboys and helpers,	----	----	----	----	1	----	----	----	----	----	----	----	1
Shaftmen,	----	1	----	----	----	----	----	----	----	----	1	----	2
Footmen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	1	2	6	2	8	2	3	----	4	5	2	2	37
Outside													
Blacksmiths and carpenters,	----	----	----	----	1	----	----	----	----	----	----	----	1
Engineers and firemen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Slatepickers (boys),	1	----	----	----	----	----	----	----	----	----	----	----	1
Footmen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Laborers,	----	----	----	----	----	----	2	----	----	----	----	----	2
Totals,	1	----	----	----	2	----	2	----	----	----	1	----	6
Grand totals inside and outside,	2	2	6	2	10	2	5	----	4	5	3	2	43

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	2	1	2	1	----	----	3	3	3	----	18
Miners' laborers,	2	----	----	1	----	----	----	----	2	2	1	2	10
Drivers and runners,	1	----	1	----	----	----	1	----	----	----	----	3	6
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Company men,	----	----	1	----	1	----	----	----	----	----	----	----	2
Footmen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Driver-bosses,	----	----	----	----	----	1	----	----	----	----	----	----	1
Headmen,	----	----	----	----	----	----	----	1	----	----	----	----	1
Slopemen,	----	----	----	----	----	----	----	----	----	1	----	----	1
Tracklayers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Barn-bosses,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	5	1	4	2	4	2	1	1	5	7	5	6	43
Outside													
Blacksmiths and carpenters,	----	----	----	----	----	----	----	----	1	----	----	----	1
Engineers and firemen,	----	----	----	----	----	----	----	----	----	----	----	1	1
Oilers,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	----	1	----	----	----	----	----	----	1	----	----	1	3
Grand totals inside and outside,	5	2	4	2	4	2	1	1	6	7	5	7	46

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	----	1	2	1	2	----	1	1	----	1	11
English,	----	----	1	----	----	----	----	----	----	----	1	----	2
German,	----	----	----	----	1	----	----	----	1	1	----	1	4
Polish,	----	----	3	1	1	1	1	----	1	1	2	----	11
Slavonian,	----	1	1	----	3	----	----	----	1	----	----	----	6
Lithuanian,	1	----	1	----	2	----	1	----	----	2	----	----	7
Russian,	----	----	----	----	1	----	1	----	----	----	----	----	2
Totals,	2	2	6	2	10	2	5	----	4	5	3	2	43

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	----	1	----	1	1	1	----	1	2	1	2	12
Welsh,	----	1	1	----	1	----	----	----	----	----	----	----	3
Irish,	----	----	----	----	----	----	----	1	1	1	----	2	5
Polish,	3	----	1	----	2	----	----	----	1	1	3	2	13
Italian,	----	----	----	----	----	----	----	----	2	1	----	----	3
Slavonian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Lithuanian,	----	1	1	2	----	----	----	----	1	1	1	----	7
Russian,	----	----	----	----	----	----	----	----	----	----	----	1	1
Greek,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	5	2	4	2	4	2	1	1	6	7	5	7	46

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Kingston Coal Co.																
Kingston No. 2 Colliery:																
Kingston No. 3,	Shaft,	Gaseous,	Fan,	25	8	7.8	70	1.3	Guibal,	Steam,		8	165,000	115,000	172,000	
Kingston No. 2,	Shaft,	Gaseous,	Fan,	21	6	6.9	78	1.8	Guibal,	Steam,		4	113,000	100,000	120,000	
Kingston,	Slope,															1,182
Kingston No. 41,	Drift,															
Kingston No. 42,	Drift,	Non-gas.,	Natural,									8	75,000	68,000	80,000	
Kingston No. 43,	Drift,															
Kingston No. 44,	Drift,															
Dodds,	Tunnel,															
Gaylord Colliery:																
Gaylord,	Slope,	Gaseous,	Fan,	25	8	8.0	60	1.1	Guibal,	Steam,		8	122,200	117,000	*117,000	402
Delaware and Hudson Co.																
Plymouth No. 3 Colliery:																
Plymouth,	Shaft,	Gaseous,	2 Fans,	28	10	7.6	60	2.2								
				17	5	4.0	90	1.2	Guibal,	Steam,		13	287,000	243,000	337,000	646
Plymouth,	Drift,	Non-gas.,	Fan,	17	5	4.0	45	.2								
Plymouth No. 5, Colliery:																
Plymouth,	Shaft,	Gaseous,	Fan,	22	5	6.6	85	.3								
Plymouth No. 4,	Shaft,	Gaseous,	Fan,	17	5	4.0	100	.7	Guibal,	Steam,		19	403,900	335,000	465,000	660
Boston,	Shaft,	Gaseous,	Fan,	22	5	6.6	75	.2								
Boston,	Drift,	Non-gas.,	Natural,													

*A portion of the current screens through abandoned inaccessible workings to caves on crop lines.

Plymouth No. 2 Colliery:															
Plymouth,	Shaft,	Gaseous,	3 Fans,	28	10	7.6	71	3.4	Guibal,	Steam,	14	290,000	268,000	330,000	541
				22	5	6.6	80	2.1							
				12.11	3	3.0	75	.6							
Lehigh and Wilkes-Barre Coal Co. Nottingham Colliery:															
				24	7.1	6.0	78	2.0							
				24	8.0	6.0	76	2.2							
Nottingham,	Shaft,	Gaseous,	5 Fans,	24	8.0	6.0	77	2.1	Guibal,	Steam,	14	325,000	267,000	359,000	909
				24	8.0	6.0	78	2.2							
				24	8.0	6.0	77	2.2							
Nottingham,	Slope,	Gaseous,	Fan,	23.9	5.7	5.11	75	1.0	Guibal,	Steam,	6	145,640	92,465	158,000	
Lance No. 11 Colliery:															
				34.3	10.11	8.45	43	2.3							
Lance No. 11,	Shaft,	Gaseous,	3 Fans,	35	11.9	8.9	43	2.2	Guibal,	Steam,	14	300,000	210,000	374,000	532
				35	11.9	8.9	44	2.0							
Delaware, Lackawanna and Western Railroad Co. Woodward Colliery:															
				16	5.0	6.3	105	1.6	Dickson, open,						
Woodward No. 1,	Shaft,	Gaseous,	3 Fans,	16	5.8	6.3	105	1.6	Dickson, open,						
				35	9.2	10.1	46	2.0	Dickson, closed,						
				20	7.0	6.6	120	2.5	Jeffrey, closed,						
Woodward No. 2,	Shaft,	Gaseous,	2 Fans,	20	7.0	6.6	120	2.5	Jeffrey, closed,	Steam,	36	601,600	471,000	691,000	1,450
				20	7.0	6.6	120	2.5	Jeffrey, closed,						
Woodward No. 3,	Shaft,	Gaseous,	2 Fans,	20	7.0	6.6	120	2.5	Jeffrey, closed,						
Woodward,	Slope,	Gaseous,	Fan,	16	5.0	4.0	75	1.0	D. L. and W. open						
Avondale Colliery:															
				25	8.0	8.0	74	2.6	Vulcan,						
Avondale,	Shaft,	Gaseous,	2 Fans,	14	5.6	3.6	120	1.3	Dickson, open,	Steam,	8	205,000	180,000	*114,000	215
Parrish Coal Co. Buttonwood Colliery:															
				35	11.9	10.8	50	2							
Buttonwood,	Shaft,	Gaseous,	3 Fans,	24	8.0	7.4	70	2	Guibal,	Steam,	19	236,000	200,000	264,000	445
				20	5.8	5.8	80	2							

*A portion of the current screens through abandoned inaccessible workings to caves on crop lines.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Parrish Colliery:																
Parrish.	Slope,	Gaseous,	2 Fans	24 20	8.0 5.8	7.4 5.8	70 85	2.1 2.1	Guibal,	Steam,		9	127,000	101,000	128,000	333
Plymouth Coal Co.																
Dodson Colliery:																
Dodson.	Shaft,	Gaseous,	Fan,	20	6.6	5.8	85	2.3	Guibal,	Steam,		8	87,000	85,000	140,000	256
George F. Lee Coal Co.																
Chauncey Colliery:																
Chauncey.	Slope, Slope, Drift,	Non-gas.,	Natura									3	45,000	34,000	50,000	236
Bright Coal Co.																
Hillside Colliery:																
Hillside.	Slope,	Non-gas.,	Fan,	12	4.0	2.1	80	1	Guibal,	Steam,		1	14,500	12,000	16,000	23
Dunn Coal Co.																
Dunn Colliery:																
Dunn.	Slope,	Non-gas.,	Nature									1	8,500	5,200	9,000	10

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Kingston Coal Co. Kingston No. 2, Gaylord, Gaylord Washery, Kingston No. 2 Washery,	Luzerne,	F. E. Zerby,	Wilkes-Barre,	Thomas H. Williams, Ralph Smith,	Edwardsville, Wilkes-Barre,	Lehigh Valley, Delaware and Hudson, D., L. and W. Delaware and Hudson
Delaware and Hudson Co. Plymouth Nos. 2, 3, 5, Plymouth Washeries Nos. 2, 3, 5,	Luzerne,	C. C. Rose	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Lehigh and Wilkes-Barre Coal Co. Nottingham, Lance No. 11, Inman No. 21,*	Luzerne,	C. F. Huber,	Wilkes-Barre,	Morgan R. Morgans, Inside Superintendent. W. H. Herring, Outside Superintendent.	Wilkes-Barre,	C. R. R. of N. J.
Delaware, Lackawanna and Western Railroad Co. Woodward, Avondale, Loomis,*	Luzerne,	R. A. Phillips,	Scranton,	Henry G. Davis,	Kingston,	D. L. and W.
Parrish Coal Co. Buttonwood, Parrish,	Luzerne,	William G. Thomas,	Wilkes-Barre,	George O. Thomas,	Wilkes-Barre,	C. R. R. of N. J.
Plymouth Coal Co. Dodson,	Luzerne,	Thomas R. Phillips,	Kingston,	Gilbert S. Jones,	Dorranceton,	D. L. and W.
George F. Lee Coal Co. Chauncey,	Luzerne,	George F. Lee,	Wilkes-Barre,	Benjamin Amos,	Plymouth,	D. L. and W.

*Sinking Shaft.

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
West Nanticoke Coal Co. West Nanticoke Washery,	Luzerne,	A. D. W. Smith,	Wilkes-Barre,	J. J. Richards,	Wilkes-Barre,	Pennsylvania
Bright Coal Co. Hillside,	Luzerne,	David Spruks,	Scranton,	Jonathan Vipond,	Scranton,	Delaware and Hudson
Dunn Coal Co. Dunn,	Luzerne,	G. G. Hollister,	Kingston,			Delaware and Hudson

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Kingston Coal Co.													
Kingston No. 2,	Luzerne,	908,677	21,300	90,443	1,020,420	298	1,538	3	6	704,400	14,750	5,800	170
Gaylord,		201,847	21,100	10,935	233,882	241	501	3	----	105,000	6,575	400	59
		1,110,524	42,400	101,378	1,254,302	----	2,039	6	6	809,400	21,325	6,200	229
Washeries													
Gaylord,	Luzerne,	155,606	----	32,835	188,441	295	35	----	----	----	----	----	----
Kingston No. 2,		169,045	3,870	15,368	188,283	294	42	----	----	----	----	----	----
		324,651	3,870	48,203	376,724	----	77	----	----	----	----	----	----
Totals,		1,435,175	46,270	149,581	1,631,026	----	2,116	6	6	809,400	21,325	6,200	229
Delaware and Hudson Co.													
Plymouth No. 3,	Luzerne,	425,175	8,939	4,679	438,793	266	818	3	3	287,825	3,759	----	86
Plymouth No. 5,		391,169	5,092	7,045	403,306	210	930	6	6	250,250	1,517	----	102
Plymouth No. 2,		291,428	28,677	----	320,105	223	705	6	3	233,375	6,721	----	----
		1,107,772	42,708	11,724	1,162,204	----	2,453	15	12	771,450	11,997	----	188

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Washeries													
Plymouth No. 3,	Luzerne,	73,158	24,808	----------	97,966	180	*	----	----	----------	----------	----------	----------
Plymouth No. 5,		23,956	43,260	----------	67,216	67	†	----	----	----------	----------	----------	----------
Plymouth No. 2,		7,540	13,207	----------	20,747	20	‡	----	----	----------	----------	----------	----------
		104,654	81,275	----------	185,929	----------	----------	----	----	----------	----------	----------	----------
Totals,		1,212,426	123,983	11,724	1,349,133	----------	2,453	15	12	771,450	11,997	----------	188
Lehigh and Wilkes-Barre Coal Co.													
Nottingham,	Luzerne,	656,031	63,152	6,076	725,259	207	1,120	3	10	323,225	7,988	----------	188
Lance No. 11,		399,700	30,326	2,785	432,811	242	698	5	5	268,600	16,768	44,186	109
Inman No. 21,§		----------	----------	----------	----------	----------	----------	1	----	----------	----------	----------	----------
Totals,		1,055,731	93,478	8,861	1,158,070	----------	1,818	9	15	591,825	24,756	44,186	297
Delaware, Lackawanna and Western Railroad Co.													
Woodward,	Luzerne,	922,892	40,724	7,818	971,434	265	1,710	4	3	812,323	8,767	3,500	145
Avondale,		11,991	6,703	1,691	20,385	28	275	----	----	1,875	2,010	735	30
Loomis,§		----------	----------	----------	----------	----------	----------	3	----	----------	----------	----------	----------
Totals,		934,883	47,427	9,509	991,819	----------	1,985	7	3	814,198	10,777	4,235	175

*Included with employes of Plymouth No. 3.
†Included with employes of Plymouth No. 5.
‡Included with employes of Plymouth No. 2.
§Sinking shaft.

Parrish Coal Co.														
Buttonwood,	Luzerne,	156,350	30,000	5,371	191,721	174	584	1	----	87,525	89,000	1,000	91
Parrish,		103,482	30,000	5,232	138,714	162	467	3	8	73,800	59,850	7,600	69
Totals,		259,832	60,000	10,603	330,435	----	1,051	4	8	161,325	148,850	8,600	160
Plymouth Coal Co.														
Dodson,	Luzerne,	119,868	36,500	3,353	159,721	197	388	----	1	37,150	8,400	----------	38
George F. Lee Coal Co.														
Chauncey,	Luzerne,	89,082	7,300	2,388	98,770	246	313	2	----	27,500	6,900	355	42
West Nanticoke Coal Co.														
West Nanticoke Washery,	Luzerne,	46,113	2,400	1,155	49,668	270	42	----	----	----------	----------	----------	2
Bright Coal Co.														
Hillside,	Luzerne,	14,492	1,500	503	16,495	252	38	----	1	13,750	500	----------	8
Dunn Coal Co.														
Dunn,	Luzerne,	7,500	----------	2,500	10,000	147	18	----	----	4,000	----------	----------	----------
Grand totals,		5,175,102	418,858	200,177	5,794,137	----	10,222	43	46	3,230,598	233,505	63,570	1,139

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Kingston Coal Co.,	Luzerne,			14	3,550	3,550	7		6	51	4,750	3	3,060	2,200	1	1
Delaware and Hudson Co.,		54	1,350	26	6,900	8,250				112	9,680	10	14,700	4,150	2	
Lehigh and Wilkes-Barre Coal Co.,				24	5,550	5,550	3	5		114	8,021	4	4,832	2,400		7
Delaware, Lackawanna and Western Railroad Co.,				20	4,375	4,375	3		16	54	7,343	8	13,900	10,173	7	2
Parrish Coal Co.,				30	4,500	4,500				50	8,281	6	4,950	2,600		8
Plymouth Coal Co.,				15	2,650	2,650				12	2,650	3	2,100	1,500	1	3
George F. Lee Coal Co.,				4	350	350				6	300					
West Nanticoke Coal Co.,				3	300	300	1			3	150	1	800	800	3	
Bright Coal Co.,				3	200	200				4	300	1	125	60		
Dunn Coal Co.,												1	150	100	2	
Totals,		54	1,350	139	28,375	29,725	14	5	22	406	41,475	37	44,617	23,983	16	21

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside												Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside		Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Kingston Coal Co.,	Luzerne,	5	14	3	576	507	234	21	3	86	135	1,584		2	5	86	45	2	48	7	337	532	2,116
Delaware and Hudson Co.,		4	5	14	547	651	239	61	12	281	42	1,856		------	5	24	110	79	96	6	87	597	2,453
Lehigh and Wilkes-Barre Coal Co.,		3	3	16	523	370	167	78	12	------	269	1,441		------	2	18	62	80	17	8	190	377	1,818
Delaware, Lackawanna and Western Railroad Co.,		4	4	18	523	486	141	53	27	280	129	1,665		------	3	32	52	39	4	5	185	320	1,985
Parrish Coal Co.,		2	2	12	241	173	96	43	11	29	169	778		2	5	12	45	28	56	9	116	273	1,051
Plymouth Coal Co.,		1	1	3	57	75	38	16	6	39	20	256		1	1	11	24	31	----	2	62	132	388
George F. Lee Coal Co.,		1	1	1	71	89	26	------	------	33	14	236		------	1	3	5	27	4	1	36	77	313
West Nanticoke Coal Co.,		----	----	----	----	----	----	------	------	----	------	----		------	1	1	3	5	4	1	27	42	42
Bright Coal Co.,		1	----	----	13	2	4	------	2	1	------	23		1	1	----	3	6	----	1	3	15	38
Dunn Coal Co.,		1	----	----	4	4	1	------	------	------	------	10		1	----	----	1	2	----	----	4	8	18
Totals,		22	30	67	2,555	2,357	946	272	73	749	778	7,849		7	24	187	350	299	229	40	1,237	2,373	10,222

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Kingston Coal Co.,	Luzerne,	25	21	23	22	26	24	18	20	19	23	24	24	269
Delaware and Hudson Co.,		21	19	22	19	19	20	17	21	20	19	18	18	233
Lehigh and Wilkes-Barre Coal Co.,		23	17	18	20	23	23	11	8	16	23	22	21	225
Delaware, Lackawanna and Western Railroad Co.,*		23	18	21	21	23	23	18	26	23	24	23	22	265
Parrish Coal Co.,		22	16	16	9	9	10	9	11	16	16	•16	18	168
Plymouth Coal Co.,		17	15	17	15	17	17	15	18	17	17	16	16	197
George F. Lee Coal Co.,		24	20	26	------	25	21	22	21	23	20	20	24	246
Bright Coal Co.,		24	22	19	14	26	16	16	21	25	20	24	25	252
Dunn Coal Co.,		9	8	9	12	15	12	9	16	16	19	22	------	147

*Avondale Colliery not included.

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 6	Dennis McKee,	American,	Slatepicker,	15	S.			Chauncey,		Smothered by being drawn through coal pocket. Outside.
9	Anthony Shetski,	Lithuanian,	Miner,	43	M.	1	2	Parrish,		Killed by being struck by trip of loaded cars on gangway.
Feb. 7	Patrick Claherty,	American,	Shaftman,	36	W.		1	Inman No. 21, (Sinking Shaft),		Killed by falling down shaft.
10	Joseph Gura,	Slavonian,	Driver,	24	M.	1	3	Kingston No 2,		Killed by being squeezed between car and prop on gangway.
Mar. 7	Anthony Gudseck,	Polish,	Laborer,	27	S.			Nottingham,		Killed by fall of top coal at face.
16	Nuter Goodrich,	Polish.	Laborer,	28	M.	1	2	Kingston No 2,		Fatally injured by being struck by loaded trip of cars on gangway.
21	Albert Crawford,	English,	Driver,	18	S.			Lance No. 11,		Killed by being struck by loaded trip on No. 5 Ross vein slope.
24	Alexander Chisereski,	Polish,	Laborer,	19	S.			Plymouth No. 2,	Luzerne,	Fatally burned by explosion of powder in chamber. Died April 10.
27	Andrew Stefancian,	Slavonian,	Miner,	44	M.	1	3	Plymouth No. 3,		Killed by fall of rock at face. He tried to bar the rock down, but failed.
29	William Coronski,	Lithuanian,	Miner,	35	M.	1	4	Woodward,		Fatally burned by explosion of powder in drill hole at face. Died April 5.
April 8	Thomas Hooligan,	American,	Miner,	36	M.	1	2	Gaylord,		Killed by fall of top coal at face.
12	Andrew Calinesky,	Polish,	Laborer,	31	M.	1	5	Loomis (Sinking Shaft)		Fatally injured by falling down shaft. Died April 13.
May 1	John Lecky,	Lithuanian,	Miner,	45	M.	1	2	Nottingham,		Fatally burned by explosion of gas in face of adjoining chamber. Died May 21.
9	Michael Lukshick,	Polish,	Miner,	46	M.	1	2	Woodward,		Killed by premature blast at face due to cutting squib.
	John Russluski,	Slavonian,	Miner,	29	M.	1	4			
	William Angelovicz,	Slavonian,	Laborer,	29	M.	1	2	Plymouth No. 5,		Suffocated by gases from underground fire. See article in Preliminary Part of Report on Boston Mine fire.
10	George Fender,	American,	Driver,	19	S.					
	John Malast,	American,	Doorboy,	17	S.					
	Jacob Kovilla,	Slavonian,	Miner,	42	S.					

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
May 11	Harry Rabock,	Russian,	Fan engineer,	50	M.	1	5	Woodward,		Killed by belt splice while oiling pulley journal. Outside.
20	August Broszeitt,	German,	Carpenter,	54	S.			Plymouth No. 3,		Fatally injured by falling from roof of washery to ground. Died same day. Outside.
22	Anthony Roginski,	Lithuanian,	Miner,	53	M.	1	1	Lance No. 11,		Fatally injured by being struck by flying coal from premature blast at face due to shortening squib. Died same day.
June 7	Dennis Noonan,	American,	Footman,	33	M.	1	3	Gaylord,		Killed on gangway by being caught by runaway loaded car from slope.
26	Walter Gilsheski,	Polish,	Laborer,	24	S.			Woodward,		Killed by fall of top coal on gangway while watching his miner drilling hole.
July 10	Andrew Obletila,	Russian,	Laborer,	42	M.	1	6	Loomis (Sinking Shaft)		Fatally injured by falling off a pile of lumber. Outside.
17	Anthony Buskum,	Lithuanian,	Miner,	32	M.	1		Plymouth No. 2,	Luzerne,	Fatally injured by being struck by flying coal from blast. He returned too quickly to airway. Died same day.
21	Ralph Grey,	American,	Laborer,	18	S.			Gaylord,		Fatally injured by falling from breaker annex to ground. Died August 1. Outside.
25	Jeremiah Boney,	American,	Laborer,	47	M.	1	1	Plymouth No. 2,		Killed by runaway rock car, which he had blocked with 1 inch boards on a pitch of 10 degrees in rock hole chamber.
26	Alexander Steffanovitz,	Polish,	Laborer,	21	S.			Loomis (Sinking Shaft)		Fatally injured by falling down shaft a distance of 60 feet. Died August 2.
Sept. 15	Joseph Leonard,	Polish,	Miner,	25	M.	1	2	Kingston No 2,		Killed by fall of rock while barring out coal at face.
	Frank Bryant,	German,	Miner,	57	M.	1	1	Lance No. 11,		Killed by being struck by flying coal from blast. He thought the squib had missed fire and returned to the face.

Sept.	23	William Brown,	American,	Miner,	25	S.			Plymouth No. 2,		Killed by being struck by flying coal from premature blast at face.
	27	John Datia,	Slavonian,	Laborer,	35	M.	1	2	Plymouth No. 5,		Fatally injured by being squeezed between chute projection and car on gangway. He jumped on empty trip. Died September 25.
Oct.	9	Joseph Yonko,	Polish,	Laborer,	55	M.	1	6	Parrish,		Fatally injured by fall of top coal while barring out coal at face.
		William Stracetutes,	Lithuanian,	Miner,	57	M.	1	2			Killed by fall of top coal.
	14	August Keene,	German,	Laborer,	28	S.			Plymouth No. 2,		Fatally injured by fall of rock while loading car at face.
	17	Thomas Markevicz,	Lithuanian,	Miner,	51	M.	1	1	Lance No. 11,		Killed by fall of coal while working at face.
	19	Joseph Smith,	American,	Miner,	42	M.	1	3	Plymouth No. 3,	Luzerne,	Killed by fall of rock at face. He entered the face immediately after firing a blast.
Nov.	9	Anthony Wilkes,	Polish,	Footman,	21	S.			Chauncey		Fatally injured by being squeezed between loaded cars. Outside.
	11	Joseph Konoski,	Polish,	Miner,	24	S.			Plymouth No. 2,		Killed by fall of top coal at face of gangway. He did not examine roof after firing blast.
	21	Albert Downs,	English,	Shaftman,	42	M.	1		Lance No. 11,		Killed by falling down shaft. He attempted to get on carriage after signal had been given.
Dec.	5	Harry Poslock,	German,	Driver,	19	S.			Buttonwood,		Fatally injured by being struck by runaway loaded car on gangway. Died same day.
	22	Edward Colligan,	American,	Driver,	19	S.			Nottingham,		Fatally injured by being struck by runaway loaded car on gangway. Died same day.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Stanley Sultz,	Polish,	Miner,	36	M.	Parrish,		Hands and face burned by explosion of gas at face.
4	Peter Blaseak,	Polish,	Laborer,	39	M.	Plymouth No. 3,		Leg fractured by being struck by empty car at face.
10	John Krinchus,	Polish,	Laborer,	22	S.	Kingston No. 2,		Leg fractured by fall of coal at face.
18	Joseph Corimff,	American,	Driver,	20	S.	Nottingham,		Kicked in abdomen by a mule that he was driving on gangway.
27	John Mason,	American,	Miner,	34	M.	Kingston No. 2,		Injured internally by fall of top coal at face while setting a prop.
Feb. 9	Benjamin Pierce,	Welsh,	Oiler,	21	S.	Lance No. 11,		Compound fracture of arm by being caught by a line of shafting. Outside.
23	George Asadorky,	Lithuanian,	Miner,	45	M.	Kingston No. 2,		Leg fractured by fall of rock at face.
Mar. 20	James Ratter,	American,	Runner,	24	S.	Plymouth No. 5,		Leg fractured by being struck by a piece of board at face.
22	Jonah Davis,	Welsh,	Company man,	31	S.	Nottingham,	Luzerne,	Leg fractured by being struck by a pole while side-hitching trip on gangway.
23	Joseph Bugrofski,	Polish,	Miner,	24	M.	Lance No. 11,		Leg fractured by fall of coal at face while barring out loose coal.
28	Frank Bakran,	Lithuanian,	Miner,	52	M.	Nottingham,		Hands and face burned by explosion of gas at face.
April 5	Adam Cretbilis,	Lithuanian,	Laborer,	27	S.	Lance No. 11,		Hands and face burned by explosion of gas at face.
13	Charles Brodofski,	Lithuanian.	Miner,	39	S.	Parrish,		Neck, hands and face burned by explosion of gas at face.
May 5	Alexander Sockoloski,	Polish,	Miner,	42	M.	Nottingham,		Leg fractured by piece of coal that rolled against him at face.
13	Frank Nareski,	Polish,	Miner,	24	M.	Plymouth No. 2,		Foot fractured by fall of rock at face.
15	Harry Obitz,	American,	Footman,	26	M.	Kingston No. 2,		Arm fractured by being struck by a piece of coal that fell down shaft.
27	John Lloyd,	Welsh.	Company man,	24	S.	Nottingham,		Leg fractured by being struck by a prop that was dislodged by car on gangway.

June	1	Nicholas Katrincz,	Greek	Miner	40	M.	Lance No. 11,		Nose fractured by being struck by flying coal from premature blast at face.
	6	Worrell Roberts,	American,	Driver boss	59	M.	Nottingham,		Pelvis fractured by being struck by a derailed car on slope.
July	11	Robert Smith,	American,	Driver,	17	S.	Plymouth No. 5,		Ankle fractured by being squeezed between empty cars on gangway.
Aug.	5	Patrick Harren,	Irish,	Headman,	27	S.	Plymouth No. 3,		Leg fractured by being caught by derailed loaded trip of cars on gangway.
Sept.	1	Henry Evans,	American,	Carpenter,	25	M.	Plymouth No. 5,		Leg fractured by being struck by steel bar. Outside.
	19	Thomas Gressie,	Italian,	Miner,	35	S.	Parrish,		Body injured and hand blown off while tamping dynamite at face.
		Edward Gressie,	Italian,	Laborer,	33	S.			Body lacerated while assisting in tamping dynamite hole at face.
	23	John McDonough,	Irish,	Miner,	43	M.	Woodward,		Ribs fractured and body lacerated by being struck by flying coal from premature blast at face.
		Martin Gushak,	Polish,	Laborer,	30	M.	Plymouth No. 5,		Ribs fractured and body bruised by fall of roof while pushing coal down the chute in chamber.
	29	John Remack,	Lithuanian,	Miner,	26	S.	Woodward,	Luzerne,	Body lacerated by being struck by flying coal from premature blast at face.
Oct.	2	James Brennan,	Irish,	Miner,	41	M.	Woodward,		Collar bone fractured by being struck by flying coal from delayed blast at face.
	7	Rinaldo Mazzanti,	Italian,	Miner,	31	M.	Hillside,		Jaw fractured by fall of slate at face.
	9	William Walchefsky,	Polish,	Laborer	26	S.	Kingston No. 2,		Leg fractured by fall of coal at face while barring out a shot.
	11	Andrew Vanzdure,	Slavonian,	Miner,	39	M.	Plymouth No. 2,		Face and arms burned by explosion of gas. He entered face against orders.
		George Freeman,	American,	Doorboy,	16	S.	Nottingham,		Ribs fractured by being caught between car and door frame when jumping on car on airway.
	12	James Rowlands,	American,	Slopeman,	22	S.	Plymouth No. 5,		Hand crushed by car while adjusting latches on gangway.
	27	Benjamin Rasamovicz,	Lithuanian,	Laborer,	26	S.	Dodson,		Ankle fractured by a piece of coal striking his leg at face.
Nov.	7	Costic Cristo,	Polish,	Miner,	33	M.	Parrish,		Hands and face burned by explosion of gas. They neglected to repair brattice at face.
		Joseph Ezenski,	Polish,	Miner,	36	M.			
	8	Ignatz Lubulski,	Lithuanian,	Laborer,	30	M.	Lance No. 11,		Injured internally by being struck by overturned empty car on gangway.
	15	Stephen Ward,	American,	Tracklayer,	56	M.	Nottingham,		Eyesight destroyed by piece of steel that struck him while cutting rail on gangway.
	21	Charles Jago,	Polish,	Miner,	39	M.	Nottingham,		Collar bone fractured by fall of top coal at face.
Dec.	1	Stanley Yawolski	Polish,	Driver,	18	S.	Nottingham,		Hips injured by being squeezed between cars and fall of rock on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 6	John Nafus,	Irish,	Driver,	21	S.	Parrish,	Luzerne,	Knee dislocated by being squeezed between cars on gangway.
7	Michael Panko,	Russian,	Laborer,	25	S.	Kingston No. 2,		Pelvis fractured by fall of rock at face.
	Bromstaw Marcinkowi,	Polish,	Laborer,	28	M.	Plymouth No. 3,		Leg fractured. He slipped on rail and fell while playing on gangway.
9	John Barton,	Irish,	Runner,	21	S.	Parrish,		Injured internally by being run over by trip of cars on slope.
15	William Allabaugh,	American,	Barn boss,	59	M.	Plymouth No. 5,		Ankle fractured by wire rope while crossing plane.
25	Emory Drum,	American,	Engineer,	42	M.	Plymouth No. 2,		Hand mangled and four fingers severed by engine rod while repairing engine. Outside.

CONDITION OF COLLIERIES

KINGSTON COAL COMPANY

Kingston No. 2 and Gaylord.—Safety conditions, ventilation and drainage, good.

DELAWARE AND HUDSON COMPANY

Plymouth Nos. 2, 3 and 5.—Safety conditions, ventilation and drainage, good.

LEHIGH AND WILKES-BARRE COAL COMPANY

Nottingham and Lance No. 11.—Safety conditions, ventilation and drainage, good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Woodward and Avondale.—Safety conditions, ventilation and drainage, good.

PARRISH COAL COMPANY

Buttonwood and Parrish.—Safety conditions, ventilation and drainage, good.

PLYMOUTH COAL COMPANY

Dodson.—Safety conditions, ventilation and drainage, good.

GEORGE F. LEE COAL COMPANY

Chauncey.—Safety conditions, ventilation and drainage, good.

BRIGHT COAL COMPANY

Hillside.—Safety conditions, ventilation and drainage, good.

DUNN COAL COMPANY

Dunn.—Safety conditions, ventilation and drainage, good.

IMPROVEMENTS

KINGSTON COAL COMPANY

Kingston No. 2 Colliery.—Outside: The breaker has been equipped with a new Carpenter patent dust eradicator, size of fan 15 feet by 6 feet, belt driven, for removing dust from the breaker and eliminating such dust in a new water tower built on the outside of the breaker.

Two new jigs were installed in breaker.

The breaker has been wired and lighted by electricity.

A brick-concrete wash-house completed for the use of the miners, equipped with shower baths, individual tubs and two hundred steel lockers.

Concrete engine houses were constructed, supplanting frame at Lance bore hole, Orchard bore hole and Nos. 2 and 3 shafts.

Warehouse and office of brick, supplanting frame.

Nos. 2 and 3 shaft hoisting engines were equipped with Welch Improved Overwinding Prevention Device, steam reverse and brake.

Brick-concrete-steel mule bath, shoeing and wagon shed completed.

Twenty-five thousand gallon circular wooden water tank set in place.

Nos. 2 and 3 shaft towers have been stripped of wooden sheathing and head frame removed and strengthened.

No. 2 Shaft.—Inside: In accordance with the Act of June 15, 1911, all buildings inside of the mines have been constructed of incombustible material.

A concrete emergency hospital was built at the bottom of No. 2 shaft.

A concrete fire boss station was built in the Lance vein at the foot of shaft.

Two openings were driven from the Cooper to the Lance vein for second outlet.

A rock tunnel was driven from the Cooper to the Lance vein, a distance of 180 feet for traveling way and mule way.

The Bennett vein barn was extended, with steel and concrete stalls.

No. 3 Shaft.—Inside: Concrete-steel barn was built in Red Ash vein.

Concrete motor pit was built.

Concrete emergency hospital was built at the foot of the shaft.

A concrete fire boss station was built.

A balance plane was made in Red Ash vein.

Kingston Nos. 2 and 4 Washeries.—No. 2 culm bank was exhausted on October 23, and they are now preparing No. 4 bank through No. 2 washery structure.

Three new conveyor lines were built, running by subway under the railroad tracks, Main Street and No. 4 yard, to transport No. 4 bank to the washery.

Four new jigs were installed.

A 25,000 gallon fresh water circular wooden tank is in course of construction at boiler house.

Roadway for retail wagon trade under washery.

Silting from the washery was carried into No. 3 Ross and Red Ash workings.

Gaylord.—Outside: A brick ambulance wagon shed was erected.

The culm plane bridge over wagon road was rebuilt.

A 50,000 gallon cedar water storage tank was placed on steel and concrete foundations.

A playground was established along Cherry Street, complete with swings, wading basin, horizontal bars, turnstiles, etc., and opened to the children of employes on July 4.

Foundations have been completed for a new Ingersoll-Rand air compressor.

Inside: A concrete engine house was built for the Red Ash slope engines.

A bore hole 450 feet was sunk from the head of culm plane to the Red Ash vein for silting purposes.

Red Ash slope was extended and steel timbers are being tried.

Silting operations have been carried on extensively during the year.

LEHIGH AND WILKES-BARRE COAL COMPANY

Nottingham No. 15 Colliery.—Outside: Wash house at Reynolds.
Feed water system.
Inside: New manway for No. 1 slope.
One compressed air locomotive installed.
No. 5 tunnel, Ross to Top Ross.
Started remodeling pumping plants, No. 1 slope.
New rope hole for No. 2 slope.
No. 8 tunnel, Ross to Surface.
No. 9 tunnel, Surface to Baltimore.
One compressed air locomotive installed.
Lance No. 11 Colliery.—Outside: Wash house.
Five hundred H. P. boiler.
Inside: 12 by 16-inch hoisting engines provided for No. 19 plane.
Three compressed air locomotives installed.
No. 12 plane extended from Baltimore to Cooper and 12 by 16-inch hoisting engines provided.
Double-tracking No. 4 tunnel.
Inman No. 21 Colliery.—Developing in Baltimore vein.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Woodward Colliery.—The No. 3 shaft connecting with Nos. 1 and 2 main shafts has been equipped with two Jeffrey multi-blade 20-foot ventilating fans, which are now in running order and are capable of producing 420,000 cubic feet of air per minute.

In No. 2 shaft there is also under way and almost completed a multi-blade, Jeffrey 20-foot ventilating fan, which will take the place of two 16-foot fans now operating on this shaft.

The breaker building has been equipped with galvanized or iron dust boxes, connected to a 14-foot direct driven fan installed in a brick and concrete building.

A large exhaust steam generator is now being installed, housed in a brick and concrete building, near the No. 1 shaft ventilating fan, which will generate considerable power for this colliery.

No. 17 slope from Surface to Snake Island or Abbott vein, has been connected by parallel tunnels for second openings and return.

Two rock tunnels have been driven from Cooper vein to Lance vein for development and ventilation.

The work of erecting concrete arches and of grading a main haulage road to Woodward No. 3 is under way, and they expect to have the same finished during the early part of 1912.

A large triple expansion pump, 3,500 gallon capacity, has been installed at the foot of shaft, Red Ash vein, to pump water to the surface. It is housed in a concrete and steel building lighted with electricity.

During the year the colliery has been equipped with four Draeger helmets, known as "Life-saving Apparatus," and men have been trained in their use.

The work of rebuilding pump-rooms, engine houses and mule barns with incombustible material is about completed.

The condition of the colliery's workings from a safety standpoint is receiving the attention of the officials, and every effort is being made to reduce the number of accidents.

Avondale Colliery.—A new ventilating fan 25 by 8 by 8 feet, was placed in operation during the year.

The colliery resumed operations on a small scale during the month of November, after being idle the entire year, due to the subsidence that took place at this plant, by which a large quantity of water was permitted to flow into the workings from the bed of the Susquehanna River. The work of re-opening is being proceeded with as fast as conditions permit.

Installed in No. 1 slope, Red-ash vein, a 3,500 gallon centrifugal, electrically operated pump.

The colliery has also been equipped during the year with four Draeger helmets, and men have been trained in their use. This apparatus is kept in a small brick building, and is examined frequently by a man detailed for that work to see that it is kept in good condition.

Loomis Colliery.—The two shafts 50 feet 4 inches by 12 feet, sunk on this property have now reached the Hillman vein, 930 feet below the surface. Connections have been made between the shafts and preparations are being made for the erection of a 12-inch concrete partition separating hoistway and airway. When this work is completed and towers are erected, coal will be mined and shipped to Bliss colliery, Hanover township, for preparation.

The slope on 15 degree dip, which is being sunk from the Surface to the George vein, has passed through the upper seams and reached a depth of 645 feet.

A 20-foot Jeffrey ventilating fan is in running condition. Plans for the erection of breaker are under way, and work on the breaker will be started during the year 1912.

BRIGHT COAL COMPANY

During the year the Bright Coal Company put down a well on the property of John Barry. It is 327 feet deep and has a diameter of 6 inches and a capacity of 72 gallons per minute. It supplies the Company with sufficient water for all purposes.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Willow Street School, Plymouth, April 4 and 5. The Board of Examiners was composed of D. T. Davis, Mine Inspector, Wilkes-Barre; H. G. Davis, Superintendent, Kingston; William Toner, Miner, Larksville; James Addis, Miner, Edwardsville.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Joseph Dzialdowski, Glen Lyon; Milton R. Edwards, David G. Jones, Charles E. Rowe, S. Fuller Reynolds, David J. James, David R. Humphreys, Plymouth; William W. Jones, John E. Morris, Edwardsville; William L. Richards, Courtdale; Edward W. Taylor, Charles T. Gallagher, Larksville.

Assistant Mine Foremen

William Adamson, Phillip Callender, William Dearing, Lewis Keating, Gwilym Lloyd, Thomas J. Nolan, John R. Richards, William C. Thomas, David F. Walters, Edwardsville; Elliot Davis, Elmer Jones, Isaiah Kershaw, William G. Lewis, David E. Price, James Stephens, Charles Trebilcox, Francis Walker, William R. Williams, Plymouth; James J. Duffy, Harry Titus, Kingston; Charles D. Dare, Jr., Larksville; Adolph Roschot, West Nanticoke; Lincoln Sanders, Christopher.

TENTH DISTRICT

LUZERNE COUNTY

Nanticoke, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Tenth Anthracite District, for the year ending December 31, 1911, as required by law.

Respectfully submitted,

JOSEPH J. WALSH, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	9
Number of mines,	39
Number of mines in operation,	39
Number of tons of coal shipped to market,	4,005,431
Number of tons used at mines for steam and heat,	364,579
Number of tons sold to local trade and used by employes,	53,672
Number of tons produced,	4,423,682
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	7,161
Number of persons employed outside,	2,256
Number of fatal accidents inside of mines,	30
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	39
Number of non-fatal accidents outside,	4
Number of tons of coal produced per fatal accident inside,	147,456
Number of persons employed per fatal accident inside,	239
Number of persons employed per fatal accident outside,	1,128
Number of persons employed per non-fatal accident inside,	184
Number of persons employed per non-fatal accident outside,	564
Number of wives made widows,	25
Number of children made orphans,	73
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	26
Number of compressed air locomotives used inside,	15
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	52
Number of electric motors used outside,	3
Number of fans in use,	39
Number of furnaces in use,	.....
Number of gaseous mines in operation,	31
Number of non-gaseous mines in operation,	8
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Susquehanna Coal Company,	1,391,229
Delaware, Lackawanna and Western Railroad Company,	1,368,534
West End Coal Company,	754,631
Lehigh and Wilkes-Barre Coal Company,	566,052
Alden Coal Company,	293,369
E. S. Stackhouse Coal Company,	49,867
Total,	4,423,682

Production by Counties

Luzerne,	4,423,682

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Susquehanna Coal Co.,	8	1	9	12	1	13	173,904	115,936	2,510	1,043	3,553	314	1,043	209	1,043
Delaware, Lackawanna and Western Railroad Co.,	15	1	16	8		8	91,236	171,067	2,457	469	2,926	164	469	307	
West End Coal Co.,	3		3	12	1	13	251,544	62,886	1,011	339	1,350	337		84	339
Lehigh and Wilkes-Barre Coal Co.,	4		4	4	1	5	141,513	141,513	681	187	868	170		170	187
Alden Coal Co.,				3	1	4		97,790	502	167	669			167	167
Miscellaneous Companies,										51	51				
Totals and averages for district,	30	2	32	39	4	43	147,456	113,428	7,161	2,256	9,417	239	1,128	184	564

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,				2	1	2							5	16.67
Falls of slate,						2							2	6.67
Falls of roof,						1			1	2	2	2	8	26.67
Mine cars,	1				1				1				3	10.00
Explosions of gas,				2								2	4	13.33
Suffocation by gas, etc.,												1	1	3.33
Explosions of powder and dynamite,						1							1	3.33
Blasts, premature and otherwise,		1		1		2						1	5	16.67
Electricity,						1							1	3.33
Totals,	1	1		5	2	9			2	2	2	6	30	100.00
Causes of Accidents Outside														
Cars,										1			1	50.00
Electricity,			1										1	50.00
Totals,			1							1			2	100.00
Grand totals inside and outside,	1	1	1	5	2	9			2	3	2	6	32	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1		1		1				1				4	10.26
Falls of slate,	1												1	2.56
Falls of roof,	2			1								1	4	10.26
Mine cars,	2		1	2			1	1	1	1		3	12	30.77
Explosions of gas,										1		1	2	5.13
Explosions of powder and dynamite,	1							1					2	5.13
Blasts, premature and otherwise,		2					1		1		2	1	7	17.95
Falling down chambers,		1											1	2.56
Machinery,		2											2	5.13
Struck by piece of coal,								1					1	2.56
Struck by timber,										1			1	2.56
By falling,			1			1							2	5.13
Totals,	7	5	3	3	1	1	2	3	3	3	2	6	39	100.00
Causes of Accidents Outside														
Cars,	1	1					1					1	4	100.00
Totals,	1	1					1					1	4	100.00
Grand totals inside and outside,	8	6	3	3	1	1	3	3	3	3	2	7	43	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen												1	1
Miners		1		3		4				1		3	12
Miners' laborers				2	1	5			1	1	2	1	13
Drivers and runners	1												1
Slope-men									1				1
Masons					1								1
Brakemen												1	1
Totals	1	1		5	2	9			2	2	2	6	30
Outside													
Electricians			1										1
Loaders										1			1
Totals			1							1			2
Grand totals inside and outside	1	1	1	5	2	9			2	3	2	6	32

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen										1			1
Assistant mine foremen												1	1
Miners	2	2	1		1		1	3	2	1	2		15
Miners' laborers	4	2	1	1					1	1		3	13
Drivers and runners				1			1					2	4
Doorboys and helpers				1									1
Timbermen						1							1
Engineers		1											1
Motormen			1										1
Footmen	1												1
Totals	7	5	3	3	1	1	2	3	3	3	2	6	39
Outside													
Company men	1												1
Roadmen							1						1
Laborers		1										1	2
Totals	1	1					1					1	4
Grand totals inside and outside	8	6	3	3	1	1	3	3	3	3	2	7	43

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,										1		1	2
English,												1	1
Welsh,	1											1	2
Irish,			1										1
Polish,		1		4		6			1	2	1		15
Italian,						1						1	2
Slavonian,												2	2
Lithuanian,					1								1
Austrian,									1		1		2
Russian,				1	1								2
Swedish,						1							1
Bohemian,						1							1
Totals,	1	1	1	5	2	9			2	3	2	6	32

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	1		2						1		2	8
English,												1	1
Welsh,						1							1
German,		1					1					1	3
Polish,	4	3	2		1			1	3	2	2	2	20
Hungarian,								1					1
Italian,				1			2					1	4
Slavonian,		1						1					2
Lithuanian,			1										1
Austrian,	1												1
Russian,	1												1
Totals,	8	6	3	3	1	1	3	3	3	3	2	7	43

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Susquehanna Coal Co.															
Colliery No. 5:															
Number 2,	Shaft,	Gaseous,	2 Fans,	20	6	6	60	1.8	Guibal,	Steam,	5	110,400	85,200	116,400	310
				25	8	8	56	1.6							
Number 4,	Slope,	Gaseous,	2 Fans,	20	6	6	60	1.8	Guibal,	Steam,	5	165,960	101,200	190,000	230
				20	6	6	90	2.8							
Number 4,	Shaft,	Gaseous,	Fan,	20	6	6	59	1.2	Guibal,	Steam,	4	86,000	64,000	87,000	195
Number 5,	Shaft,	Gaseous,	Fan,	8	2	3	28	.2	Sturtevant.	Steam,	2	15,000	10,000	17,000	78
Number 29,	Tunnel,	Non-gas.,	Natural,								1	5,000	3,000	5,500	15
Number 2,	Drift,	Non-gas.,	Natural,								1	8,000	4,000	8,100	20
Number 1,	Slope,	Non-gas.,	Natural,								1	12,000	8,000	12,500	14
Colliery No. 6:															
Number 6,	Tunnel,	Gaseous,	Fan,	20	6	6	56	.7	Guibal,	Steam,	6	93,000	85,000	95,000	152
Number 6,	Shaft,	Gaseous,	2 Fans,	25	8	8	60	.9	Guibal,	Steam,	5	160,000	155,000	165,000	330
				20	6	6	50	.1							
Number 7,	Shaft,	Gaseous,	Fan,	20	6	6	55	.2	Guibal,	Steam,	6	79,000	70,000	80,000	260
Number 10,	Slope,	Gaseous,	Fan,	7.5	2	3	175	1.5	Capell,	Electricity,	1	20,000	15,000	21,000	56
Number 1,	Drift,										1	18,000	12,000	19,000	34

Colliery No. 7:															
Number 1 South,	Shaft,	Gaseous,	2 Fans,	25	8	8	68	1.6	Guibal,	Steam,	10	182,000	175,000	230,000	430
				20	8	8	72	2.7							
Number 1 North,	Shaft,	Gaseous,	4 Fans,	25	8	8	76	1.8	Guibal,	Steam,	10	170,000	165,000	137,000	386
				15	4	4	76	1.7	Guibal,	Steam,					
				25	8	8	54	1.8	Guibal,	Steam,					
				10	3	2	80	2.6	Capell,	Electricity,					
Delaware, Lackawanna and Western Railroad Co.															
Auchincloss Colliery:															
Number 1,	Shaft,	Gaseous,	Fan,	25	8.0	8	82	3	Guibal,	Steam,	13	218,240	185,320	244,620	528
Number 2,	Shaft,	Gaseous,	Fan,*	25	8.0	8									
Bliss Colliery:															
Bliss,	Shaft,	Gaseous,	Fan,	35	9.2	9	52	2	Guibal,	Steam,	20	190,600	170,000	215,000	700
Espy,	Tunnel,	Gaseous,	Fan,	24	4.3	10	72	1.6	Guibal,	Steam,	7	60,000	45,000	71,000	84
Truesdale Colliery:															
Number 5,	Slope,			16	7.0	5	90	2	Jeffrey,	Steam,	8	165,000	155,900	177,080	215
Mills,	Slope,														
Number 6,	Slope,	Gaseous,	Fan,	12	5.0	4	125	2.2	Jeffrey,	Steam,	7	102,800	86,100	111,600	106
Truesdale,	Tunnel,			12	3.3	5	124	.8	Open running,	Electricity,	5	42,500	31,800	48,200	81
Number 1,	Shaft,			25	7.0	5	69	2.1	Guibal,	Steam,	7	140,000	119,997	141,970	235
Number 2,	Shaft,			25	7.7	5	80	2.5	Guibal,	Steam,	12	270,680	195,790	211,800	183
West End Coal Co.															
West End Colliery:															
Long,	Drift,	Gaseous,	Fan,	16	4.0	4	70	.8	Guibal,	Steam,	7	111,000	100,000	115,000	300
			Fan,	20	4.0	6	65	1.8							
Sand,	Drift,	Gaseous,	Fan,	4.5	2.0	3	500	1.5	Stine,	Electricity,	2	28,600	27,500	30,700	85
Number 1 Lee,	Drift,	Gaseous,	Fan,	15	3.0	3	90	1.6	Guibal,	Electricity,	4	105,000	88,000	109,300	224
Number 3 Lee,	Drift,	Non-gas.,	Fan,	6	1.5	1	150	.5	Guibal,	Electricity,	1	20,000	18,000	22,000	34
Barney,	Drift,	Non-gas.,	Fan,	16	4.0	6	50	1.4	Guibal,	Steam,	1	52,000	48,000	56,000	46
Number 6,	Slope,	Non-gas.,	Natural,								1	5,100	3,200	5,200	8
Lehigh and Wilkes-Barre Coal Co.															
Wanamie Colliery:															
Number 2,	Slope,	Gaseous,	Fan	24	8.0	6.0	73	1.2	Guibal,	Steam,	11	133,800	121,150	143,950	340
Number 1,	Drift,										1	15,300	13,000	17,800	24
Number 3,	Slope,	Gaseous	Fan,	24	8.0	6.0	67	1.8	Guibal,	Steam,	4	102,400	86,700	110,700	63
Number 3,	Drift,										1	30,200	30,400	39,000	24
Polander,	Drift,										1	32,600	28,000	35,800	18

*Reserve fan.

TABLE I--Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Alden Coal Co.															
Alden Colliery:															
Number 1,	Shaft,	Gaseous,	Fan,	15	5.1	4.8	84	2	Guibal,	Steam,	5	62,200	62,200	64,900	101
Number 2,	Shaft,	Gaseous,	2 Fans,	24	8.0	7.0	66	12	Guibal,	Steam,	11	162,990	162,990	220,885	299
				24	9.0	5.10	66	2							
Baltimore,	Slope	Non-gas.,	Fan,	15	5.1	4.8	40	1	Guibal,	Steam,	2	13,750	11,750	14,200	34
Outside,	Slope,	Non-gas.,	Fan,	8	2.8	1.9	170	1	Guibal,	Steam,	1	7,000	6,700	7,200	7

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Susquehanna Coal Co. Number 5, 6, 7, Nanticoke Washery,	Luzerne,	Robert A. Quin,	Wilkes-Barre,	Francis H. Kohlbraker,	Nanticoke,	Pennsylvania
Delaware, Lackawanna and Western Railroad Co. Auchincloss, Bliss, Truesdale,	Luzerne,	R. A. Phillips,	Scranton,	H. G. Davis,	Kingston,	D. L. and W.
West End Colliery West End, West End Washery,	Luzerne,	H. H. Brady,	Scranton,	H. A. Fillmore,	Shickshinny,	Penna. and C. R. R. of N. J.
Lehigh and Wilkes-Barre Coal Co. Wanamie,	Luzerne,	C. F. Huber,	Wilkes-Barre,	W. H. Herring, Outside, M. R. Morgans, Inside,	Wilkes-Barre,	C. R. R. of N. J.
Alden Coal Co. Alden,	Luzerne,	K. M. Smith,	Alden Station,			C. R. R. of N. J.
E. S. Stackhouse Coal Co. Washery,	Luzerne,	E. S. Stackhouse,	Shickshinny,			D. L. and W.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Susquehanna Coal Co.													
Number 5	Luzerne,	352,554	74,215	17,409	444,178	223	1,235	1	9	294,000	22,728	4,542	97
Number 6	Luzerne,	503,187	47,995	4,782	555,964	225	1,178	3	1	354,600	18,964	14,725	81
Number 7	Luzerne,	326,821	62,810	----------	389,631	197	1,130	5	3	146,300	16,818	50,680	109
		1,182,562	185,020	22,191	1,389,773	---------	3,543	9	13	794,900	58,510	69,947	287
Nanticoke Washery	Luzerne,	1,396	60	----------	1,456	10	10	----	----	----------	----------	----------	----
Totals		1,183,958	185,080	22,191	1,391,229	---------	3,553	9	13	794,900	58,510	69,947	287
Delaware, Lackawanna and Western Railroad Co.													
Auchincloss	Luzerne,	153,884	16,200	5,604	175,688	163	626	4	2	63,225	6,045	35,125	42
Bliss	Luzerne,	389,934	30,524	3,781	424,239	251	925	7	5	359,400	13,720	16,500	63
Truesdale	Luzerne,	742,370	25,581	656	768,607	243	1,375	5	1	665,025	37,257	76,100	41
Totals		1,286,188	72,305	10,041	1,368,534	---------	2,926	16	8	1,087,650	57,022	127,725	146
West End Coal Co.													
West End	Luzerne,	621,223	42,000	8,894	672,117	273	1,340	3	13	230,975	207,437	94,325	53
West End Washery	Luzerne,	82,514	----------	----------	82,514	300	10	----	----	----------	----------	----------	----
Totals		...	42,000	8,894	754,631	---------	1,350	3	13	230,975	207,437	94,325	53

Lehigh and Wilkes-Barre Coal Co. Wanamie,	Luzerne,	519,814	43,383	2,855	566,052	238	868	4	5	24,050	14,827	104,950	120
Alden Coal Co. Alden,	Luzerne,	266,103	19,011	8,255	293,369	210	669		4	19,325	8,885	31,400	70
E. S. Stackhouse Coal Co. Washery,	Luzerne,	45,631	2,800	1,436	49,867	293	51						
Grand totals,		4,005,431	364,579	53,672	4,423,682		9,417	32	43	2,546,900	346,681	428,347	670

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Susquehanna Coal Co.,	Luzerne,	33	1,155	47	12,014	13,169	14	15	6	91	13,595	9	10,850	4,100	5	11
Delaware, Lackawanna and Western Railroad Co.,				11	4,712	4,712	1		35	54	8,700	7	9,080	7,680	6	3
West End Coal Co.,				10	3,300	3,300	8		14	29	2,515	7	3,200	2,700	5	3
Lehigh and Wilkes-Barre Coal Co.,*				10	1,666	1,666	3			41	2,623	5	4,258	2,080		
Alden Coal Co.,*				10	1,945	1,945	2			9	1,375	2	1,800	1,000	1	3
E. S. Stackhouse Coal Co.,				3	120	120				3	100					
Totals,		33	1,155	91	23,757	24,912	28	15	55	227	28,908	30	29,188	17,560	17	20

*These companies also have a gasoline engine used for haulage purposes inside.

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Susquehanna Coal Co.,	Luzerne,	4	10	35	829	772	259	37	21	38	505	2,510	1	4	79	173	154	31	18	583	1,043	3,553
Delaware, Lackawanna and Western Railroad Co.,		5	4	26	786	960	111	31	13	521	------	2,457	------	4	32	51	108	8	10	256	469	2,926
West End Coal Co.,		2	8	2	445	303	45	9	12	180	5	1,011	1	1	15	26	36	26	5	229	339	1,350
Lehigh and Wilkes-Barre Coal Co.,		1	2	6	310	180	61	32	7	------	82	681	------	1	7	23	39	20	4	93	187	868
Alden Coal Co.,		1	1	5	176	151	77	11	7	------	73	502	1	1	10	30	33	24	8	60	167	669
E. S. Stackhouse Coal Co.,		----	----	----	------	------	------	------	------	------	------	------	1	2	2	3	6	2	2	33	51	51
Totals,		13	25	74	2,546	2,366	553	120	60	739	665	7,161	4	13	145	306	376	111	47	1,254	2,256	9,417

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Susquehanna Coal Co.,	Luzerne,	20	13	18	22	21	18	13	12	13	20	23	22	215
Delaware, Lackawanna and Western Railroad Co.,		21	13	14	17	20	20	17	16	20	21	20	20	219
West End Coal Co.,		24	22	24	22	23	23	21	21	23	24	23	23	273
Lehigh and Wilkes-Barre Coal Co.,		22	18	19	21	24	24	11	14	16	25	22	22	238
Alden Coal Co.,		21	17	15	16	20	19	0	20	18	20	19	19	210

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 15	Paul Williams,	Welsh,	Driver boss,	33	M.	1	3	Truesdale,	Luzerne,	Killed by runaway trip of cars on slope. He was walking down the slope when the chain broke.
Feb. 28	Adolph Dobrowalski,	Polish,	Miner,	36	S.			Number 5,		Fatally injured by premature blast.
Mar. 20	John Grady,	Irish,	Electrician,	22	S.			Bliss,		Fatally injured by an electric shock while working on a pole. Outside.
April 5	Joseph Andrisick,	Polish,	Laborer,	22	S.			Wanamie,		Fatally injured by fall of coal near face of chamber.
26	Andrew Bilzco,	Russian,	Laborer,	20	S.			Wanamie,		Killed by fall of coal at face of chamber.
	Wadic Dubish,	Polish,	Miner,	40	M.	1	5	Number 7,		Killed by premature blast at face of chamber.
27	Leo Tusanell,	Polish,	Miner,	41	M.	1	6	Bliss,		Fatally burned by gas at face of chamber.
29	John Gill,	Polish,	Miner,	38	M.	1	5	Number 7,		Fatally burned by gas at face of chamber.
May 12	Michael Houdak,	Russian,	Mason,	54	M.	1		Number 6,		Fatally injured by cars at foot of shaft.
16	Mike Rocka,	Lithuanian,	Laborer,	27	M.	1		Bliss,		Killed by fall of top coal at face of chamber.
June 3	August Michalski,	Polish,	Laborer,	31	M.	1	2	Bliss,		Killed by coming in contact with trolley wire on gangway.
5	William Strumfries,	Swedish,	Laborer,	47	M.	1	1	Bliss,		Killed by fall of coal at face of chamber.
7	Bazyl Potroff,	Polish,	Miner,	30	M.	1	3	West End,		Killed by fall of rock at face of chamber.
8	John Broderick,	Polish,	Miner,	49	M.	1	6	Truesdale,		Killed by explosion of charge while connecting wires to fire a blast. One of their firing wires was connected to the negative electric light wire, while the other was touching the rail of an electric haulage road.
	Steve Trynick,	Polish,	Laborer,	45	M.	1	2			
14	Andrew Magooda,	Polish,	Laborer,	48	M.	1	4	Wanamie,		Killed by fall of slate at face of working place.
16	Lewis Pero,	Italian,	Laborer,	22	S.			Wanamie,		Killed by fall of slate at face of working place.

TABLE 4—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 19	Charles Hughes,	Bohemian,	Miner,	53	M.	1	3	Bliss,		Killed by explosion of dynamite in chamber.
20	Peter Marcelevice,	Polish,	Miner,	32	M.	1	2	Auchincloss,		Killed by fall of coal at face of chamber.
Sept. 21	Leon Carzvalic,	Polish,	Laborer,	24	M.	1	1	Auchincloss,		Killed by fall of rock at face of chamber.
27	Sam Sharkala,	Austrian,	Slopeman,	25	S.			Truesdale,		Fatally injured by being squeezed by car on which he was riding on slope. The car jumped off the track.
Oct. 12	Frank Whitcofski,	American,	Miner,	31	M.	1	4	Number 7,		Killed by fall of rock at face of chamber.
13	Louis Sink,	Polish,	Loader,	45	M.	1	5	Number 6,		Fatally injured by being run over by car under breaker. Outside.
17	Edward Wasilewski,	Polish,	Laborer,	28	M.	1	1	Truesdale,		Killed by fall of rock at face of chamber.
Nov. 8	Frank Bystrek,	Polish,	Laborer,	30	M.	1	2	Number 7,	Luzerne,	Killed by fall of rock at face of chamber.
17	Louis Gentiline,	Austrian,	Laborer,	42	M.	1	3	Number 6,		Killed by fall of rock near face of tunnel.
Dec. 2	Michael Bucho,	Slavonian,	Brakeman,	19	S.			Bliss,		Killed by fall of rock on gangway road.
	Benjamin P. Thomas,	Welsh,	Miner,	45	M.	1	4	Auchincloss,		Fatally burned by gas while at work in face of gangway.
	John Nigosh,	Slavonian,	Laborer,	37	M.	1	5			
12	Sherd Hughes,	American,	Miner,	43	M.	1		West End,		Killed by fall of rock while cleaning up cave on gangway.
13	Frank Coperlitti,	Italian,	Miner,	27	M.	1	1	West End,		Killed by premature blast at face of gangway.
14	John Bryant,	English,	Assistant foreman,	38	M.	1	5	Number 7,		Suffocated by gas. He went into a crosscut, which was not yet connected with opposite chamber, to rap to approaching miner, and was overcome and died before he could be rescued.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 12	John Shemlock,	Polish,	Laborer,	19	S.	Wanamie,	Luzerne,	Head cut and collar bone broken by fall of slate at face of chamber.
17	Elias Blockus,	Polish,	Footman,	24	S.	Number 7,		Leg broken by being squeezed between cars at foot of shaft.
17	David Jones,	American,	Miner,	30	S.	West End,		Back broken by fall of rock at face of chamber.
19	Chima Lasmo,	Russian,	Laborer,	27	S.	Bliss,		Burned by explosion of powder at face of chamber.
26	Theo. Hagenback,	American,	Company man,	73	M.	Wanamie,		Collar bone fractured by being struck by cars. Outside.
	Joe Boots,	Polish,	Laborer,	45	M.	West End,		Leg broken by fall of coal from rib at face of chamber.
	Stanley Roskosky,	Polish,	Laborer,	22	S.	West End,		Leg broken by being caught between car and slope rope.
	John Paulik,	Austrian,	Miner,	50	M.	Wanamie,		Three ribs broken by fall of rock at face of chamber.
Feb. 1	William Makofski,	Polish,	Engineer,	22	S.	Number 6,		Four fingers cut off while cleaning engine.
15	George Covall,	Slavonian,	Laborer,	42	M.	Bliss,		Body bruised by falling down pitching chamber.
20	Peter Marden,	Polish,	Laborer,	25	S.	Alden,		Arm fractured by being caught under cage.
	Harvey Stackhouse,	American,	Laborer,	19	S.	Alden,		Two fingers smashed while coupling cars. Outside.
21	August Vermouth,	German,	Miner,	44	M.	Bliss,		Three ribs fractured by premature blast.
	Frank Sobritzki,	Polish,	Miner,	55	M.	Number 5,		Leg broken by premature blast.
Mar. 6	William Brennan,	Polish,	Motor-runner,	24	M.	West End,		Hip broken by being squeezed between car and motor on gangway road.
13	Joe Sluskonis,	Lithuanian,	Laborer,	28	S.	West End,		Rib fractured by falling off chamber platform.
17	Anthony Yanoshuski,	Polish,	Miner,	26	S.	West End,		Head cut by fall of coal in cross-cut.

TABLE 5—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April 10	Miles Rovi,	Italian,	Laborer,	24	S.	West End,	Luzerne,	Leg broken by fall of rock at face of chamber.
16	Clarence Russel,	American,	Runner,	23	S.	West End,		Leg broken by being squeezed between oil box of car and piece of coal along chamber road.
20	Roy Sager,	American,	Doorboy,	18	S.	Alden,		Rib fractured by cars on gangway road.
May 22	John Boss,	Polish,	Miner,	26	S.	Bliss,		Thigh fractured by fall of coal at face of chamber.
June 19	Thomas Smith,	Welsh,	Timberman,	60	M.	Number 7,		Rib broken by falling against car while unloading it in chamber.
July 8	Oley Mosey,	Italian,	Miner,	25	S.	West End,		Leg broken by premature blast.
24	Earnest Koboski,	German,	Runner,	17	S.	Bliss,		Ribs fractured by falling under car on gangway road.
28	Frank Paello,	Italian,	Track-man,	46	M.	West End,		Internally injured by falling off car. Outside.
Aug. 7	Steve Yatzsko,	Slavonian,	Miner,	31	M.	Number 5,		Two fingers blown off by exploder.
11	Stanley Rosmush,	Polish,	Miner,	40	M.	West End,		Leg broken by car while running it out of chamber.
26	Leslo Katocs,	Hungarian,	Miner,	31	M.	West End,		Ribs broken by being struck by piece of coal that fell down chamber.
Sept. 21	Bolish Veroslock,	Polish,	Laborer,	20	S.	Wanamie,		Hip dislocated by being squeezed between cars on gangway road.
	Peter Sisko,	Polish,	Miner,	27	M.	Truesdale,		Head, face and arm injured by premature blast.
28	Frank Litchkoski,	Polish,	Miner,	49	M.	Number 5,		Thigh broken by fall of coal at face of chamber.
Oct 5	Stanley Price,	Polish,	Miner,	45	M.	Number 7,		Thigh fractured by being struck by cars on slope.
18	William Giaski,	Polish,	Laborer,	23	M.	Auchincloss,		Hands, face and body burned by gas in face of chamber.
28	Samuel Whitson,	American,	Foreman,	72	M.	Number 5,		Injured by prop falling on him while helping to set timber.

Nov.	17	John Rogatch,	Polish,	Miner,	43	M.	Number 5,		Leg broken by flying coal from premature blast.
	28	Ignatz Lanka,	Polish,	Miner,	28	S.	Number 5,		Arm broken by flying coal from premature blast.
Dec.	1	Paul Borris,	Polish,	Laborer,	45	M.	Number 5,		Foot smashed by fall of rock at face of chamber.
	2	William Rule,	American,	Driver,	23	S.	Alden,		Ribs fractured by being struck by cars on gangway road.
		Frank Groffis,	American,	Driver,	19	S.	Wanamie,	Luzerne,	Leg broken by being struck by cars on gangway road.
		Mathew Nash,	English,	Assistant foreman,	53	M.	Auchincloss,		Face and hands burned by gas at face of gangway.
	13	Bart Caperlitti	Italian,	Laborer,	22	S.	West End,		Skull fractured by premature blast.
	18	John Pavolofski,	Polish,	Laborer,	68	M.	Number 5,		Collar bone and rib fractured by falling off railroad car. Outside.
	28	Edwin Kuckenbecker,	German,	Laborer,	30	M.	Number 5,		Rib broken by car while running it out of chamber.

CONDITION OF COLLIERIES

SUSQUEHANNA COAL COMPANY

Numbers 5 and 7.—Ventilation, drainage and condition as to safety, good.

Number 6.—Ventilation and condition as to safety, good. Drainage fair.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Auchincloss.—Ventilation, drainage and general condition, good.

Bliss and Truesdale.—Ventilation and condition as to safety, good. Drainage fair.

WEST END COAL COMPANY

West End.—Ventilation and drainage fair. Condition as to safety, good.

LEHIGH AND WILKES-BARRE COAL COMPANY

Wanamie.—Ventilation and condition as to safety, good. Drainage fair.

ALDEN COAL COMPANY

Alden.—Ventilation and condition as to safety, good. Drainage fair.

IMPROVEMENTS

SUSQUEHANNA COAL COMPANY

Colliery No. 5.—A steam locomotive 10x16 outside connected, solid frame, saddle tank, with four 30-inch diameter drivers for 42-inch track gauge with 5-foot wheel base, was purchased and placed on the surface between Nos. 4 and 5 shafts.

Old No. 1 slope has been reopened for the purpose of mining pillar and solid coal not previously mined. At the head of the slope an engine and house were erected to hoist the coal to the surface.

No. 26 slope in No. 4 slope was driven during the year 163 yards and is completed.

A second opening was driven in No. 4 shaft a distance of 126 yards and is completed.

A 26x45x48 Compound Duplex Goyne pump was installed at the foot of No. 2 shaft, and the old Bull pump was removed.

Colliery No. 6.—A new platform conveyor line was installed in the breaker during the year to convey the coal from No. 6 tunnel to the head of the breaker. This coal was formerly hoisted by rope haulage.

Built a new car and smith shop.

Installed in No. 11 slope, No. 6 tunnel, an electric pump, capable of handling 150 gallons of water per minute.

A tunnel was driven in No. 6 shaft a distance of 98 yards.

Electric haulage was installed in No. 7 shaft and three 7-ton, 250 volt electric motors placed in the shaft for transporting coal.

New air shaft in No. 7 shaft was driven 127 yards.

A slope was driven in the Hillman seam, Slope No. 6, 83 yards.

Slope No. 13 in No. 1 drift was driven a distance of 90 yards.

Colliery No. 7.—An electric sewing machine was installed in the harness shop.

Electric haulage was installed in No. 1 shaft and 2 electric motors were put in service to replace aid motors which were transferred to another mine.

A waterway was driven between Nos. 1 and 2 shafts a distance of 133 yards.

No. 30 slope in No. 1 shaft was driven 136 yards during the year.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Auchincloss Colliery.—The 25-foot ventilating fan referred to in last year's report is now in operation.

The work of erecting a brick partition between hoistway and airway, No. 2 shaft, is under way, and when it is completed a 35-foot ventilating fan will also be placed at the mines.

The work of erecting mule barns, pump-rooms, engine-houses, etc., of incombustible material will soon be completed.

Bliss Colliery.—The work of erecting brick partition in this shaft, separating hoistway and airway, is under way.

A brick and concrete wash-house for employes, with improved lockers, has been built.

A new fire-fighting apparatus has been installed on the outside, with new fire-pump, fire-line, etc.

The colliery has been equipped with four Draeger helmets known as the "Life-saving Apparatus," housed in a small brick building on the property, and men have been trained in their use.

Built a concrete and brick foremen's office and lamp-room.

The rebuilding of mule barns, pump-rooms, engine-houses, etc., of incombustible material, will soon be completed.

No. 13 slope has been sunk from the Mills to the Hillman vein. Second opening for this slope is now under way.

Truesdale Colliery.—The work of reconstructing the breaker with steel supports and pockets is under way.

The ventilating fans referred to in last year's report for No. 1 shaft and Nos. 1 and 6 slopes, have been completed.

A new rock conveyor and trestle erected from the breaker to the rock bank.

New and improved steam lines have been installed at this colliery connecting the boiler plant with various engines.

The colliery has been equipped with four Draeger helmets, known as the "Life-saving Apparatus," housed in a small brick building, and men have been trained in their use.

A rock tunnel has been driven for development, from the Mills vein, No. 5 slope, down Hillman and Baltimore seams to Forge vein.

A rock slope has been sunk through Warrior Run anticlinal to Red Ash vein.

Several short rock tunnels have been driven from Ross to Top Split Red Ash vein, which will be used for development and ventilation.

A new concrete and brick mine foremen's office has been erected at Nos. 1 and 6 slopes.

WEST END COAL COMPANY

West End Colliery.—During the year a double inlet, reversible, exhaust and blow fan was erected and put in operation at this colliery. The arrangement of the doors in the accompanying plan shows

their position when the fan is exhausting air from the mine. When changed to the position indicated by the dotted lines the fan then becomes a blow fan. This is the first and only fan of its kind in this district.

One 26 by 24-inch Ridgway side crank engine.

One 350 K. W. D. C. generator.

One 4-panel slate switchboard.

One double drum Vulcan electric shaft hoist, with solenoid brake, automatic control and overwind switch.

Two 8-inch by 12-inch cement-lined Aldrich triplex pumps.

Two 7-ton electric locomotives.

One Ingersoll-Rand compound air compressor.

One 8-foot Jeffrey fan, driven by a 100-H. P. Crocker-Wheeler motor, double inlet exhaust reversible.

One 54-inch booster fan, electric-driven, direct on line.

One hundred steel mine cars.

One rope haul and car hoist, electric-driven, Lee shaft.

The following tunnels have been driven.

No. 10 tunnel, 500 feet, Lee No. 1 to No. 4 vein across south rise.

No. 11 tunnel, 400 feet, Lee No. 1 to No. 4 vein across north rise.

No. 21 tunnel, 250 feet, Long drift, Red Ash split to Ross.

No. 22 tunnel, 50 feet, Long drift, Ross to Ross Split.

No. 23 tunnel, 50 feet, Long drift, Ross to Ross Split.

No. 24 tunnel, 150 feet, Long drift, R. A. Split. Built a concrete supply house 20 by 40 feet and a concrete boiler house 30 by 70 feet at No. 2 plant.

LEHIGH AND WILKES-BARRE COAL COMPANY

Wanamie Colliery.—Outside: Gasoline locomotive house.

Wash house at No. 19.

Inside: No. 8 tunnel extended to Hillman.

Started remodeling pumping plants in Nos. 3 and 6 slopes.

Gasoline locomotives installed.

No. 27 tunnel, Red Ash to Ross.

MINE FOREMEN'S EXAMINATIONS

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held April 4 and 5 in the High School Building, Nanticoke. The Board of Examiners was composed of Joseph J. Walsh, Mine Inspector; F. H. Kohlbraker, Superintendent; Frank Kettle and Joseph Dzialdowski, Miners.

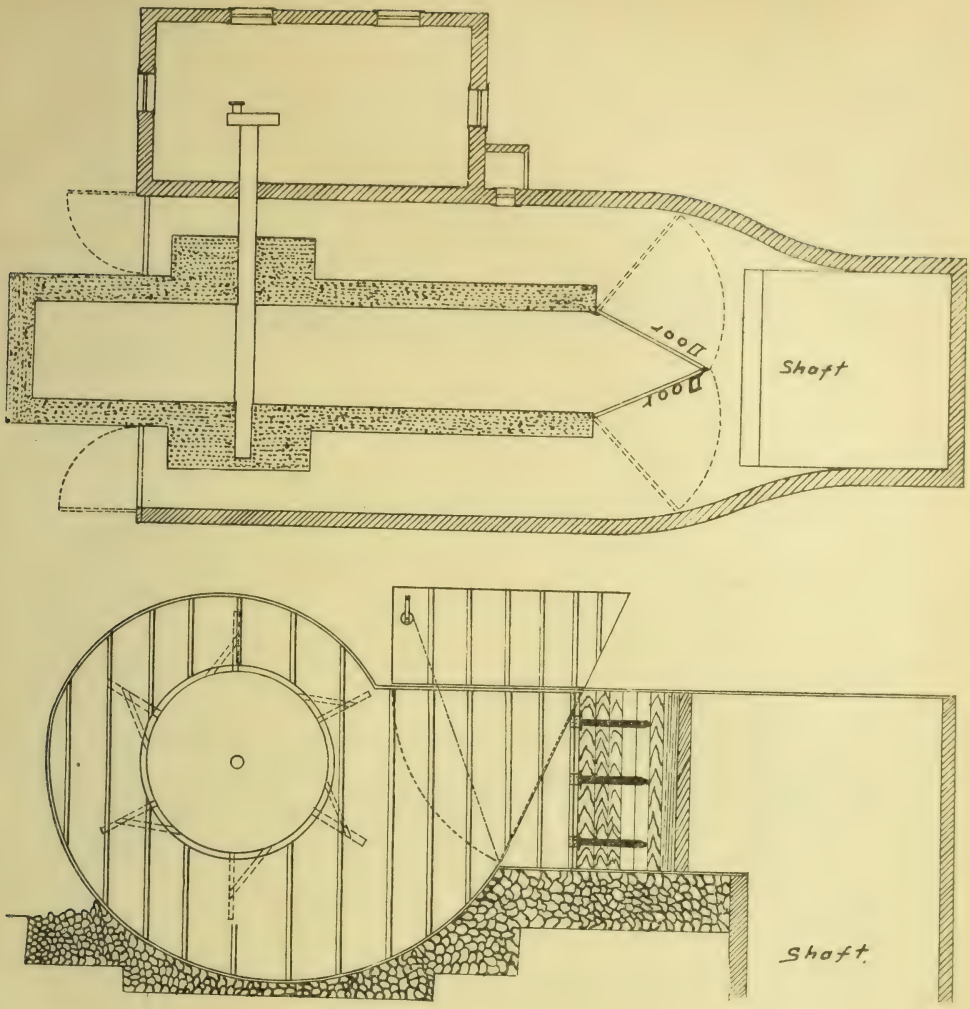
The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Daniel Davis, Jenkin Evans and James M. Williams, Nanticoke; Peter Murphy, Glen Lyon; Peter F. Mitchell, Shickshinny.

Assistant Mine Foremen

Charles Adamski, Thomas J. Arnott, Michael Gzemski, Albert R. Lewis and John W. Jones, Nanticoke; Michael Chebro, Rhone; Nelson N. Nichols, Scranton; Edward Speary, West Nanticoke; William R. Talbot, Shickshinny.



Double Inlet Exhoust Reversible Fan

ELEVENTH DISTRICT

LUZERNE COUNTY

Hazleton, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines for the Eleventh Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
DAVID J. RODERICK, Inspector.

24—24—1911

SUMMARY OF STATISTICS

Number of collieries,	21
Number of mines,	87
Number of mines in operation,	87
Number of tons of coal shipped to market,	4,881,673
Number of tons used at mines for steam and heat,	753,460
Number of tons sold to local trade and used by employes,	150,521
Number of tons produced,	5,785,654
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	7,434
Number of persons employed outside,	3,535
Number of fatal accidents inside of mines,	21
Number of fatal accidents outside,	12
Number of non-fatal accidents inside of mines,	78
Number of non-fatal accidents outside,	14
Number of tons of coal produced per fatal accident inside,	275,507
Number of persons employed per fatal accident inside,	354
Number of persons employed per fatal accident outside,	295
Number of persons employed per non-fatal accident inside,	95
Number of persons employed per non-fatal accident outside,	253
Number of wives made widows,	22
Number of children made orphans,	71
Number of steam locomotives used inside of mines,	17
Number of steam locomotives used outside,	77
Number of compressed air locomotives used inside,	11
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	16
Number of electric motors used outside,	.....
Number of fans in use,	53
Number of furnaces in use,	1
Number of gaseous mines in operation,	35
Number of non-gaseous mines in operation,	52
Number of new mines opened,	2
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
G. B. Markle and Company,	1,218,710
Lehigh Valley Coal Company,	1,023,335
Coxe Brothers and Company, Incorporated,	902,760
Pardee Brothers and Company,	674,361
A. Pardee and Company,	611,333
C. M. Dodson and Company,	365,430
Harwood Coal Company,	266,432
Upper Lehigh Coal Company,	153,940
Hazle Mountain Coal Company,	154,076
M. S. Kemmerer and Company,	133,581
John S. Wentz and Company,	121,749
Harleigh Brookwood Coal Company,	94,280
Wolf Coal Company,	60,470
Thomas R. Reese and Son,	5,197
Total,	5,785,654

Production by Counties.

Luzerne,	5,785,654

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
G. B. Markle and Co.,	6	1	7	26	2	28	203,118	46,873	1,578	495	2,073	263	495	61	247
Lehigh Valley Coal Co.,	3		3	10	1	11	341,112	102,334	1,516	657	2,173	505		152	657
Coxe Brothers and Co., Inc.,	3	7	10	12	6	18	300,920	75,230	909	406	1,315	303	58	76	68
Pardee Brothers and Co.,				3		3		224,787	666	360	1,026			222	
A. Pardee and Co.,	1	1	2	12	2	14	611,333	50,944	984	456	1,440	984	456	82	228
C. M. Dodson and Co.,	4	1	5				91,358		516	240	756	129	240		
Harwood Coal Co.,	1		1	4		4	266,432	66,608	363	135	498	363		91	
Upper Lehigh Coal Co.,		1	1	3	1	4		51,313	68	326	394		326	23	326
Hazle Mountain Coal Co.,	1	1	2		1	1	154,076		250	130	380	250	130		130
M. S. Kemmerer and Co.,				3		3		44,527	199	103	302			66	
John S. Wentz and Co.,	1		1	4	1	5	121,749	30,437	167	122	289	167		42	122
Harleigh Brookwood Coal Co.,	1		1	1		1	94,280	94,280	137	88	225	137		137	
Miscellaneous Companies,									81	17	98				
Totals and averages for district,	21	12	33	78	14	92	275,507	74,175	7,434	3,535	10,969	354	295	95	253

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,								1	2				3	14.29
Falls of slate,						2	1			2	2	1	8	38.10
Falls of roof,							1	1					2	9.52
Mine cars,			2			1				1			4	19.05
Blasts, premature and otherwise,								1					1	4.76
Falling into slopes, etc.,					1								1	4.76
Crushed at batteries,											1		1	4.76
Struck by timber,	1												1	4.76
Totals,	1		2		1	3	2	3	2	3	3	1	21	100.00
Causes of Accidents Outside														
Cars,	1	1			1		1						4	33.33
Machinery,		1								1		1	3	25.00
Suffocation in chutes, etc.,										5			5	41.67
Totals,	1	2			1		1			6		1	12	100.00
Grand totals inside and outside,	2	2	2		2	3	3	3	2	9	3	2	33	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1				2	2	1	1	2	2		1	12	15.39
Falls of slate,		1	1	2	1		1	1	2	2	1		12	15.39
Falls of roof,							1					1	2	2.56
Mine cars,			5	4	2	1	1	1	1	6	2	1	24	30.77
Explosions of gas,	1	3				2		1					7	8.98
Explosions of powder and dynamite,			1	1		2					1		5	6.41
Blasts, premature and otherwise,					1	1	1		1	1			5	6.41
Mules,		1			1						1		3	3.85
Struck by debris,	1												1	1.28
Burned by hot ashes,			1										1	1.28
Struck by rail,			1										1	1.28
Struck by timber,					1			1					2	2.56
Struck by jack,					1								1	1.28
Rush of coal,							1						1	1.28
Struck by piece of coal,										1			1	1.28
Totals,	3	5	9	7	9	8	6	5	5	12	5	3	78	100.00
Causes of Accidents Outside														
Cars,		2	1				1	1			1	1	7	50.00
Machinery,	1								1				2	14.29
By falling,		2											2	14.29
Struck by frozen clay,			1										1	7.14
Struck by gate weights,				1									1	7.14
Rush of rock,							1						1	7.14
Totals,	1	4	2	1			2	1	1		1	1	14	100.00
Grand totals inside and outside,	4	9	11	8	9	8	8	6	7	12	6	4	92	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1				1	1	1	3	1		3	1	12
Miners' laborers,						1	1		1	3			6
Doorboys and helpers,			1										1
Hitchers,			1										1
Motormen,						1							1
Totals,	1		2		1	3	2	3	2	3	3	1	21
Outside													
Foremen,	1											1	2
Slatepickers (boys),										1			1
Machinists,		1											1
Pumpmen,		1											1
Loaders,					1								1
Patchers,							1						1
Platemen,										4			4
Jig-runners,										1			1
Totals,	1	2			1		1			6		1	12
Grand totals inside and outside,	2	2	2		2	3	3	3	2	9	3	2	33

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,						1							1
Miners,	2	1	3	3	5	5	4	4	3	5	2	2	39
Miners' laborers,	1				2	1	1		2	1			8
Drivers and runners,		2	3	2		1	1		1	3	2	1	16
Doorboys and helpers,		1	2	1	1			1		3	1		10
Company men,					1								1
Bratticemen,		1											1
Trackmen,			1										1
Oilers,				1									1
Totals,	3	5	9	7	9	8	6	5	6	12	5	3	78
Outside													
Blacksmiths and carpenters,			1										1
Engineers and firemen,		1											1
Laborers,	1	3	1	1			1						7
Miners,							1						1
Loaders,								1					1
Platemen,									1				1
Hitchers,											1		1
Drivers,												1	1
Totals,	1	4	2	1			2	1	1		1	1	14
Grand totals inside and outside,	4	9	11	8	9	8	8	6	7	12	6	4	92

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	1				1					1	6
English,											1		1
Irish,					1							1	2
German,						1							1
Polish,			1			1		2		1			5
Hungarian,									2	1			3
Italian,	1					1		1		4			7
Slavonian,							1			3	1		5
Lithuanian,							1						1
Austrian,											1		1
Russian,					1								1
Totals,	2	2	2		2	3	3	3	2	9	3	2	33

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	4	4	3	1		1	1	2	2	1	1	21
Welsh,						1							1
Irish,					1	1	2						4
German,					2		1		1	2			6
Polish,		1	1	1	2	2	1	1	2	3	1	2	17
Hungarian,	1		3	1	1	1		1	1	2	2		13
Italian,	2	1					2		1	1		1	8
Slavonian,		3	1	1			1	2		1	1		10
Lithuanian,				1		1					1		3
Austrian,			1	1				1		1			4
Russian,			1			1							2
Greek,					1								1
Tyrolean,					1								1
Montenegrian,						1							1
Totals,	4	9	11	8	9	8	8	6	7	12	6	4	92

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
G. B. Markle and Co.															
Jeddo No. 4 Colliery:															
Jeddo No. 4, Slope B,	Slope,	Gaseous,	Fan,	16	4.6	4.9	100	2.	Guibal,	Steam,	3	39,000	30,000	58,000	122
Jeddo No. 4,	Shaft,	Non-gas.,	Fan,	16	4.6	4.8	65	.4			3	30,000	20,000	40,000	77
Jeddo No. 4,	Slope,	Gaseous,	Fan,	25	7.10	7.4	85	2.8			4	80,000	60,000	110,000	110
Jeddo No. 3, old,	Slope,	Gaseous,	Fan,	16	5	5	75	1.			2	32,000	20,000	44,000	38
Ebervale Colliery:															
Ebervale, Primrose,	Slope,	Non-gas.,	Fan,	10	3.1	2.7	125	.5	Guibal,	Steam,	2	16,000	12,000	17,000	56
Ebervale, Mammoth and Wharton,	Slope,	Gaseous,	Fan,	16	4.6	4.7	100	1.5			7	55,600	40,000	56,000	192
Jeddo No. 7 Colliery:															
Jeddo No. 7, Primrose and Holmes,	Slope,	Non-gas.,	Fan,	11	4.6	4.8	60	.6	Guibal,	Electricity,	2	40,000	26,000	47,000	65
Jeddo No. 7, Mammoth and Wharton,	Slope,	Non-gas.,	Natural,								1	65,000	4,000	67,500	21
Highland No. 5 Colliery:															
Highland No. 5,	Slopes,	Gaseous,	Fan,	16	4.6	4.8	100	1.9	Guibal,	Steam,	2	16,000	12,000	17,000	59
Highland No. 5,		Gaseous,	Natural,								3	30,000	18,000	32,000	87
Highland No. 5, Black Jeddo,		Gaseous,	Fan,	16	4.5	4.8	100	1.9	Guibal,	Steam,	3	33,000	28,000	38,200	132
Highland Nos. 8, 9, 10,		Non-gas.,	Fan,	7	3.8	1.6	80	.5	Guibal,	Steam,	3	22,000	18,000	32,000	45

Highland No. 2 Colliery:															
Highland No. 1,	Slopes,	Gaseous,	Natural,								3	36,000	30,000	38,000	110
Highland No. 2,		Gaseous,	Fan,	16	4.10	4.10	70	.9	Guibal,	Steam,	1	11,000	10,000	12,500	39
Highland No. 6,		Non-gas.,	Fan,	16	4.6	4.9	80	1.	Guibal,	Steam,	4	50,000	27,000	59,000	114
Lehigh Valley Coal Co.															
Hazleton No. 1 Colliery:															
Hazleton No. 1,	Slopes,	Gaseous,	Fan,	20	6.	6.	80	.62	Guibal,	Steam,	10	79,713	30,602	81,153	118
Hazleton No. 8,		Gaseous,	Fan,	16	4.	4.6	65	.50			5	32,348	17,749	37,848	60
Hazleton No. 1, Fager Ridge,		Non-gas.,	Fan,	16	5.	5.6	35	.55			*				
Hazleton Shaft Colliery:															
Hazleton Shaft,	Shaft,	Gaseous,	Fan,	20	7.	6.	65	.55			10	115,800	40,800	135,100	166
Hazleton Shaft,	Shaft,	Gaseous,	Fan,	20	7.	6.	65	.55							
Hazleton No. 3,	Slope,	Gaseous,	Fan,	17	5.	6.	65	.50	Guibal,	Steam,	5	60,200	30,900	65,300	92
Hazleton No. 5,	Slope,	Gaseous,	Fan,	14	4.9	4.	98	.55			6	53,200	44,500	60,400	112
Stockton No. 2,	Slope,	Non-gas.,	Fan,	20	6.9	4.6	40	.55			*				
Spring Mountain and Spring Brook Collieries:															
Spring Mountain No. 4,	Slopes,	Non-gas.,	Fan,	20	6.9	4.6	40	.55	Guibal,	Steam,	3	49,000	38,800	51,000	64
Spring Brook No. 1,		Gaseous,	Fan,	16	4.	4.	60	.30			4	37,000	27,500	37,500	100
Spring Brook No. 2,		Gaseous,	Fan,	14	4.9	4.	70	.30			4	49,500	33,000	50,700	115
Coxe Brothers and Co., Inc.															
Drifton Colliery:															
Drifton No. 1,	Slopes,	Non-gas.,	Fan,	16	4.	4.	60		Guibal,	Steam,	8	57,000	57,000	63,000	87
Drifton No. 2,		Gaseous,	Fan,	20	4.	5.6	80								
Drifton No. 2,		Gaseous,	Fan,	17	4.	4.	80				8	162,000	49,000	166,200	82
Eckley Colliery:															
Eckley No. 1,	Slopes,	Non-gas.,	Natural,								3	14,200	10,300	18,100	6
Eckley No. 2,			Natural,								3	30,000	4,000	32,400	8
Eckley No. 6,			Fan,	20	4.	5.6	80		Guibal,	Steam,	4	51,000	34,000	52,000	46
Eckley No. 10,			Natural,								3	15,500	11,700	17,000	35
Buck Mountain,			Natural,								3	15,500	11,300	17,000	20
Stockton,			Natural,								2	9,500	7,300	10,500	36
Deringer, Tomhicken and Gowen Collieries:															
Deringer,	Drift,	Gaseous,	Fan,	20	6.	5.6	90		Guibal,	Steam,	8	67,950	66,500	68,950	87
Tomhicken,	Drift,	Non-gas.,	Furnace,								2	16,200	9,200	17,100	44
Gowen Nos. 1 and 2,	Tunnel,	Gaseous,	Fan,	16	4.	4.	100		Guibal,	Steam,	8	63,840	42,615	64,350	108
Gowen No. 4,	Slope,	Gaseous,	Fan,	20	7.	6.	95		Guibal,	Steam,	7	53,600	36,800	64,500	60

*Robbing. No air measurements taken.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pardee Brothers and Co.															
Lattimer Colliery:															
Lattimer No. 1,		Non-gas.,	Natural,								*				16
Lattimer No. 3,		Non-gas.,	Natural								*				25
Lattimer No. 8,		Non-gas.,	Natural,								*				86
Lattimer Nos. 9 and 12,		Gaseous,	Fan,	16	4.6	4.3	95	1.6	Guibal,	Steam,	8	40,000	35,000	42,000	243
Lattimer No. 11,	Slopes,	Non-gas.,	Natural,								*				64
Lattimer No. 22,		Non-gas.,	Fan	6	3.25	1.42	150	1.	Guibal,	Steam,					
Lattimer No. 22,		Non-gas.,	Fan,	8	3.25	1.67	145		Sturtevant,	Steam,		80,000	100,000	100,000	81
Lattimer No. 24,		Non-gas.,	Natural,								*				63
Lattimer No. 26,		Non-gas.,	Fan,	6	3.25	1.42	195	1.	Guibal,	Electricity,	2	30,000	25,000	35,000	25
Lattimer No. 17,	Shaft,	Non-gas.,	Fan,	6	3.25	1.42	195	1.	Guibal,	Electricity,	*				61
A. Pardee and Co.															
Cranberry Colliery:															
Cranberry No 1, North,		Gaseous,	Fan,	16	4.	5.4	70	.95			4	52,000	35,000	56,000	378
Cranberry No. 1, South,		Gaseous,	Fan,	16	4.	4.10	70	.80			4	55,000	38,000	58,000	
Cranberry Nos. 4 and 8,		Gaseous,	Fan,	16	4.	4.9	70	.15	Guibal,	Steam,	5	35,000	29,000	36,000	84
Cranberry No. 5,	Slopes,	Gaseous,	Fan,	16	4.	4.10	70	.50			6	25,000	23,000	27,100	206
Cranberry Nos. 6 and 9,		Non-gas.,	Fan,	16	4.	4.6	70	.55			5	50,000	35,000	55,000	175
Cranberry No. 7,		Gaseous,	Fan,	16	4.	4.6	70	.55			1	39,200	29,500	40,100	141
E. Crystal Ridge No. 5,		Non-gas.,	Natural,								*				

*Robbing. No air measurements taken.

C. M. Dodson and Co.															
Beaver Brook Colliery:															
Beaver Brook No. 5,	Slopes,	Non-gas.,	Natural,								3	20,400	18,000	22,400	60
Beaver Brook No. 6,	Slopes,	Non-gas.,	Natural,								2	3,000	2,500	5,000	6
Beaver Brook No. 10,	Slopes,	Non-gas.,	Fan,	16	4.6	5	90		Guibal,	Steam,	4	50,000	41,500	69,000	165
Beaver Brook No. 11,	Slopes,	Gaseous,	Fan,	16	4.6	5	90		Guibal,	Steam,	4	25,000	22,000	27,000	106
Beaver Brook No. 15,	Slopes,	Gaseous,	Fan,	16	4.6	5	90		Guibal,	Steam,	4	22,600	18,000	27,000	45
Harwood Coal Co.															
Harwood Colliery:															
Harwood No. 1,	Slopes,	Non-gas.,	Fan,	16	4.6	4.3	72	.50	Guibal,	Steam,	*				65
Harwood No. 5,	Slopes,	Gaseous,	Fan,	16	4.6	4.3	72	.50	Guibal,	Steam,	*				115
Harwood No. 19,	Slopes,	Non-gas.,	Fan,	6	3.25	1.42	145	.50			*				20
Harwood No. 21,	Slopes,	Non-gas.,	Natural,								*				53
Harwood No. 31,	Slopes,	Non-gas.,	Natural,								*				110
Hazle Mountain Coal Co.															
Hazle Mountain Colliery:															
Hazle Mountain No. 1,	Slope,	Non-gas.,	Fan,	16	6.	4.6	72	1.	Guibal,	Steam,	3	48,400	33,050	49,000	107
Hazle Mountain No. 5,	Slope,	Non-gas.,	Fan,	16	4.	3.11	85	1.	Guibal,	Steam,	2	75,000	50,000	77,000	140
John S. Wentz and Co.															
Hazle Brook Colliery:															
Hazle Brook No. 3,	Slopes,	Non-gas.,	Natural,								2	10,000	10,000	11,000	8
Hazle Brook No. 5,	Slopes,	Gaseous,	Natural,								2	30,000	20,000	32,000	59
Hazle Brook No. 6,	Slopes,	Non-gas.,	Natural,								2	30,000	22,000	31,000	68
Hazle Brook No. 8,	Slopes,	Non-gas.,	Natural,								1	5,000	4,000	5,200	8
Hazle Brook No. 9,	Slopes,	Non-gas.,	Natural,								1	6,000	4,000	6,500	10
Hazle Brook No. 10,	Slopes,	Non-gas.,	Natural,								2	12,000	10,000	12,400	14
Harleigh Brookwood Coal Co.															
Harleigh Colliery:															
Harleigh No. 1,	Slopes,	Non-gas.,	Fan,	12	3.7	3.8	80	1.	Guibal,	Steam,	2	22,900	18,000	24,000	37
Harleigh No. 2, Spear Point,	Slopes,	Non-gas.,	Fan,	7	3.6	3.	225	.9	Buffalo,	Electricity,	2	12,000	9,000	12,200	27
Harleigh No. 3, Spear Point,	Slopes,	Non-gas.,	Fan,	7	3.6	3.	225	.9	Buffalo,	Electricity,	2	11,000	8,500	11,200	30
Wolf Coal Co.															
Wolf Colliery:															
Wolf Nos. 3 and 4,	Slopes,	Non-gas.,	Fan,	12	3.	3.6	110	1.	Guibal,	Steam,	2	22,000	18,000	22,300	74

*Robbing. No air measurements taken.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
G. B. Markle and Co.						
Jeddo No. 4 and Ebervale,	Luzerne,	H. S. Carpenter,	Jeddo,			Lehigh Valley
Jeddo No. 7,						
Highland Nos. 2 and 5,						
Lehigh Valley Coal Co.						
Hazleton No. 1,	Luzerne,	F. M. Chase,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley
Hazleton Shaft,						
Spring Mountain and Spring Brook,						
Coxe Brothers and Co., Inc.						
Drifton,	Luzerne,	F. M. Chase,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley
Deringer, Tomhicken and Gowen						
Eckley, Buck Mountain and Stockton,						
Eckley Washery,						
Pardee Brothers and Co.						
Lattimer,	Luzerne,	G. W. Barager,	Lattimer Mines,			Lehigh Valley
A. Pardee and Co.						
Cranberry,	Luzerne,	Frank Pardee,	Hazleton,			Lehigh Valley
C. M. Dodson and Co.						
Beaver Brook,	Luzerne,	John J. Turnbach,	Beaver Brook,			L. V. and C. R. R. of N. J.
Harwood Coal Co.						
Harwood,	Luzerne,	A. W. Drake,	Hazleton,			Lehigh Valley
Upper Lehigh Coal Co.						
Upper Lehigh,	Luzerne,	A. C. Leisenring,	Upper Lehigh,	James W. Shaw, Jr.,	Upper Lehigh,	C. R. R. of N. J.

Hazle Mountain Coal Co. Hazle Mountain,	Luzerne,	W. R. McTurk, President.	Pennsylyvania Building, Philadelphia.	James Burgess,	Hazleton,	Lehigh Valley
M. S. Kemmerer and Co. Sandy Run,	Luzerne,	M. S. Kemmerer,	Mauch Chunk,	J. P. Powell,	Sandy Run,	C. R. R. of N. J.
John S. Wentz and Co. Hazle Brook,	Luzerne,	T. E. Snyder,	Hazleton,	John Evans,	Hazlebrook,	Lehigh Valley
Harleigh Brookwood Coal Co. Harleigh,	Luzerne,	Frank A. Hill,	Pottsville,	I. D. Thomas,	Hazleton,	Lehigh Valley
Wolf Coal Co. Wolf,	Luzerne,	A. F. Wolf,	Wilkes-Barre,	Joseph G. Saricks,	Freeland,	Lehigh Valley
Thomas R Reese and Son Dusky Diamond,	Luzerne,	Thomas R. Reese,	Audenried,			Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
G. B. Markle and Co.													
Jeddo No. 4 and Ebervale,	Luzerne,	381,055	27,192	3,163	411,410	217	782	2	12	54,450	112,490	61,050	88
Jeddo No. 7,		169,128	5,104	3,141	177,373	237	162	....	4	12,725	31,475	7,700	13
Highland No. 5,		302,747	24,272	832	327,851	241	599	3	6	113,375	42,809	120,189	56
Highland No. 2,		254,247	40,978	6,851	302,076	255	530	2	6	10,400	28,365	106,664	56
Totals,		1,107,177	97,546	13,987	1,218,710	.....	2,073	7	28	190,950	215,139	295,603	213
Lehigh Valley Coal Co.													
Hazleton No. 1,	Luzerne,	213,813	41,010	67,368	322,191	251	578	....	....	70,975	128,410	.....	46
Hazleton Shaft,		229,238	100,377	3,595	333,210	248	799	1	3	88,725	156,084	.....	33
Spring Mountain and Spring Brook,		295,367	68,729	3,838	367,934	251	796	2	8	127,100	65,445	.....	57
Totals,		738,418	210,116	74,801	1,023,335	.....	2,173	3	11	286,800	349,939	.....	136
Coxe Brothers and Co., Inc.													
Drifton,	Luzerne,	296,650	66,385	4,701	367,736	248	539	6	5	122,150	46,127	.....	53
Deringer, Tomhicken and Gowen,		224,523	32,035	11,942	268,500	248	446	2	9	73,750	64,819	.....	66
Eckley, Buck Mountain and Stockton,		211,617	31,566	9,467	252,650	246	296	2	4	37,850	54,791	.....	55
Eckley Washery,		13,594	.....	280	13,874	168	34	....	....	.....	.....	.....	.....
Totals,		746,384	129,986	26,390	902,760	.....	1,315	10	18	233,750	165,737	.....	174

Pardee Brothers and Co.														
Lattimer,	Luzerne,	601,660	64,000	8,701	674,361	261	1,026	----	3	7,450	231,271	----------	100
A. Pardee and Co.														
Cranberry,	Luzerne,	534,394	70,080	6,859	611,333	273	1,440	2	14	101,250	312,625	----------	160
C. M. Dodson and Co.														
Beaver Brook,	Luzerne,	333,767	30,800	863	365,430	291	756	5	----	121,600	123,500	----------	64
Harwood Coal Co.														
Harwood,	Luzerne,	201,181	62,460	2,851	266,432	231	498	1	4	7,750	74,657	----------	54
Upper Lehigh Coal Co.														
Upper Lehigh,	Luzerne,	125,587	23,409	4,944	153,940	227	394	1	4	5,175	64,999	----------	42
Hazle Mountain Coal Co.														
Hazle Mountain,	Luzerne,	134,636	18,250	1,190	154,076	219	380	2	1	22,300	61,546	----------	51
M. S. Kemmerer and Co.														
Sandy Run,	Luzerne,	119,071	10,419	4,091	133,581	241	302	----	3	8,375	24,624	----------	31
John S. Wentz and Co.														
Hazle Brook,	Luzerne,	96,027	24,626	1,026	121,749	196	289	1	5	39,375	13,475	----------	25
Harleigh Brookwood Coal Co.														
Harleigh,	Luzerne,	84,810	9,000	470	94,280	275	225	1	1	15,000	40,750	----------	10
Wolf Coal Co.														
Wolf,	Luzerne,	58,234	2,236	----------	60,470	269	89	----	----	9,175	32,881	----------	3
Thomas R. Reese and Son														
Dusky Diamond,	Luzerne,	257	592	4,348	5,197	296	9	----	----	1,600	2,500	----------	2
Grand totals,		4,881,673	753,460	150,521	5,785,654	-------	10,969	33	92	1,050,550	1,713,643	295,603	1,065

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
G. B. Markle and Co.,		------	------	31	10,020	10,020	13	5	9	111	8,603	11	13,296	13,296	5	7
Lehigh Valley Coal Co.,		------	------	62	9,700	9,700	14	------	5	72	8,575	19	19,560	8,600	3	1
Coxe Brothers and Co., Inc.,		------	------	49	9,375	9,375	17	6	------	51	4,780	12	14,400	8,150	1	6
Pardee Brothers and Co.,		------	------	12	4,000	4,000	9	------	2	29	3,600	*	------	------	------	3
A. Pardee and Co.,		22	660	27	6,000	6,660	19	------	------	76	18,550	15	23,100	7,600	------	1
C. M. Dodson and Co.,		------	------	25	3,600	3,600	2	------	------	18	1,400	9	12,100	5,750	1	1
Harwood Coal Co.,	Luzerne,	------	------	12	1,800	1,800	3	------	------	18	850	5	7,000	3,500	1	1
Upper Lehigh Coal Co.,		20	600	14	2,420	3,020	8	------	------	32	1,073	10	11,550	4,500	------	1
Hazle Mountain Coal Co.,		------	------	9	1,330	1,330	4	------	------	5	450	6	6,300	2,000	------	3
M. S. Kemmerer and Co.,		6	300	4	480	780	1	------	------	8	446	1	720	720	------	------
John S. Wentz and Co.,		------	------	9	1,350	1,350	3	------	------	23	710	6	8,500	3,000	------	1
Harleigh Brookwood Coal Co.,		------	------	8	900	900	1	------	------	9	750	4	1,250	900	------	1
Wolf Coal Co.,		------	------	2	325	325	------	------	------	2	300	2	700	700	------	------
Thomas R. Reese and Son,		------	------	1	125	125	------	------	------	2	60	†	------	------	------	------
Totals,		48	1,560	265	51,425	52,985	94	11	16	456	50,147	100	118,476	58,716	12	26

*Jeddo Tunnel drainage.
†Drainage into Beaver Brook No. 10.

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
G. B. Markle and Co.,	Luzerne,	10	11	7	523	518	129	33	20	51	276	1,578	4	6	23	90	62	34	8	268	495	2,073
Lehigh Valley Coal Co.,		8	14	----	586	170	65	11	20	235	407	1,516	----	4	57	83	17	65	12	419	657	2,173
Coxe Brothers and Co., Inc.,		5	14	----	473	107	94	12	9	63	132	909	----	4	31	74	16	29	11	241	406	1,315
Pardee Brothers and Co.,		1	11	1	393	131	37	1	------	42	49	666	1	3	29	40	27	22	8	230	360	1,026
A. Pardee and Co.,		6	5	6	416	294	65	42	14	45	91	984	----	2	59	66	25	18	4	282	456	1,440
C. M. Dodson and Co.,		1	3	1	179	193	34	13	8	38	46	516	1	1	21	38	39	9	4	127	240	756
Harwood Coal Co.,		1	4	1	141	124	21	------	6	31	34	363	1	2	17	12	17	3	5	78	135	498
Upper Lehigh Coal Co.,		1	----	----	19	27	5	------	4	2	10	68	1	2	7	21	37	15	3	240	326	394
Hazle Mountain Coal Co.,		1	2	----	111	67	24	6	7	24	8	250	1	2	12	14	27	9	3	62	130	380
M. S. Kemmerer and Co.,		1	2	----	75	36	17	7	1	30	30	199	1	1	5	12	20	39	2	23	103	302
John S. Wentz and Co.,		1	2	----	75	25	15	------	4	45	------	167	1	1	9	23	17	1	2	68	122	289
Harleigh Brookwood Coal Co.,		1	----	----	50	51	9	------	5	13	8	137	1	----	7	11	21	1	1	46	88	225
Wolf Coal Co.,		1	----	----	32	26	1	------	2	12	------	74	1	----	2	3	----	----	1	8	15	89
Thomas R. Reese and Son,		1	----	----	2	3	------	------	------	------	1	7	----	----	----	1	----	----	----	1	2	9
Totals,		39	68	16	3,075	1,772	516	125	100	631	1,092	7,434	13	28	279	488	325	245	64	2,093	3,535	10,969

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
G. B. Markle and Co.,	Luzerne,	15	15	21	18	21	23	21	23	21	20	20	20	238
Lehigh Valley Coal Co.,		23	18	21	20	23	24	15	17	21	23	22	23	250
Coxe Brothers and Co., Inc.,		22	17	20	21	23	23	15	16	23	22	22	23	247
Pardee Brothers and Co.,		21	20	24	20	23	23	22	23	23	21	21	20	261
A. Pardee and Co.,		25	22	23	22	25	24	17	19	24	24	24	24	273
C. M. Dodson and Co.,		24	16	27	23	26	26	25	26	23	25	25	25	291
Harwood Coal Co.,		19	17	22	17	20	20	20	20	20	20	18	18	231
Upper Lehigh Coal Co.,		23	19	20	19	21	21	8	17	19	21	21	18	227
Hazle Mountain Coal Co.,		19	12	21	19	20	18	15	20	20	19	13	18	219
M. S. Kemmerer and Co.,		23	16	18	21	23	18	18	23	24	21	24	12	241
John S. Wentz and Co.,		17	15	16	15	16	15	17	18	16	16	17	18	196
Harleigh Brookwood Coal Co.,		22	20	25	21	23	24	23	24	24	24	22	23	275
Wolf Coal Co.,		22	18	24	23	24	24	18	20	24	24	24	24	269
Thomas R. Reese and Son,		26	24	26	25	21	21	25	27	25	26	25	25	296

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Lewis Grebe,	American,	Foreman,	50	M.	1	6	Cranberry,	Luzerne,	Fatally injured by car at foot of breaker plane. Outside.
20	Mike Rega,	Italian,	Miner,	45	M.	1	6	Highland No. 5,		Fatally injured by prop falling upon him in gangway.
Feb. 3	Michael Mulhearn,	American,	Machinist,	25	S.			Beaver Brook,		Instantly killed by being whirled around shaft in carpenter shop. Outside.
23	John Marshlick,	American,	Topman,	20	S.			Eckley,		Fatally injured by being caught between derailed car and post at top of slope. Outside.
Mar. 20	William R. Eiserman,	American,	Patcher,	17	S.			Hazle Mountain,		Fatally injured by being caught by derailed car at bottom of slope.
27	Joseph Casper,	Polish,	Hitcher,	18	S.			Highland No. 1,		Fatally injured by having his head caught between two cars in dish at bottom of slope.
May 11	John Gillespie,	Irish,	Loader,	57	M.	1	1	Drifton,		Instantly killed by being run down by loaded box car. Outside.
24	John Martiszus,	Russian,	Miner,	45	M.	1	5	Hazleton Shaft,		Fatally injured by falling down breast manway.
June 2	Toney Fecuck,	Italian,	Laborer,	34	M.	1	2	Harleigh,		Fatally injured by fall of slate in breast.
15	Stephen Jones,	German,	Motorman,	39	M.	1	2	Highland No. 5,		Instantly killed by being run over by electric motor on gangway.
17	Joseph Dobroshinskie,	Polish,	Miner,	30	M.	1	4	Highland No. 5,		Instantly killed by fall of slate on gangway.
July 1	Wilber Cumfer,	American,	Patcher,	17	S.			Jeddo No. 4,		Fatally injured by falling under cars. Outside.
11	John Yanulevich,	Lithuanian,	Miner,	26	M.	1	2	Harwood,		Instantly killed by fall of rock while robbing pillars.
17	Mike Suski,	Slavonian,	Laborer,	26	S.			Beaver Brook,		Instantly killed by fall of slate on gangway.
Aug. 7	Mike Valenski,	Polish,	Miner,	51	M.	1	4	Spring Mountain,		Instantly killed by blast in cross-cut of breast.
29	Peter Muldoon,	Italian,	Miner,	37	M.	1	3	Spring Mountain,		Fatally injured by fall of coal in breast.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 29	Alex. Solina,	Polish,	Miner,	44	M.	1	6	Jeddo No. 4,		Instantly killed by working place collapsing, due to cave of strata between Wharton and Mammoth veins.
Sept. 5	Joseph Badoe,	Hungarian,	Miner,	31	S.			Deringer,		Fatally injured by fall of coal while taking out pillars.
27	Steve Halek,	Hungarian,	Laborer,	24	M.	1	1	Highland No. 2,		Instantly killed by fall of coal from edge of pillar.
Oct. 3	Toney Plum,	Italian,	Plateman,	26	S.			Drifton,		Suffocated while taking down an old stack which stood over an abandoned air-shaft. The stack was partly surrounded by the refuse bank and when it was pushed over, the bank rushed down, sweeping the men into the shaft and suffocating them. Outside.
	John Plum,	Italian,	Plateman,	34	M.	1	2			
	Stephen Soffle,	Hungarian,	Plateman,	50	M.	1	1			
	Angelo Nazardo,	Italian,	Plateman,	32	M.	1	2			
	Joseph Camerano,	Italian,	Slatepicker,	20	S.					
5	Andro Fero,	Slavonian,	Laborer,	20	S.			Beaver Brook,	Luzerne,	Instantly killed by fall of slate in gangway while drilling a hole in bottom slate. Had sounded roof and thought it safe.
	Andro Kachufka,	Slavonian,	Laborer,	27	M.	1	1			
6	John Moskey,	Polish,	Jig-runner,	18	S.			Hazle Mountain,		Fatally injured by machinery in breaker. Outside.
9	Ignats Yangshan,	Slavonian,	Laborer,	46	M.	1	5	Eckley,		Fatally injured by falling under car which he was assisting to run out of a breast.
Nov. 13	Paul Lazors,	Slavonian,	Miner,	27	M.	1	1	Beaver Brook,		Instantly killed by fall of slate at face of robbing.
24	James Bottoms,	English,	Miner,	58	M.	1		Hazle Brook,		Instantly killed by fall of slate at face of robbing.
28	Bartol Konchinick,	Austrian,	Miner,	33	M.	1	6	Deringer,		Fatally injured by being crushed by lump of rock at battery.
Dec. 5	James O'Donnell,	Irish,	Miner,	59	M.	1	8	Cranberry,		Fatally injured by fall of slate at face of robbing.
16	William Payton,	American,	Foreman,	35	M.	1	3	Upper Lehigh,		Fatally injured by being whirled around jig shaft in washery. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	James Constantine,	Italian,	Miner,	38	M.	Hazleton Shaft,	Luzerne,	Head and wrist cut by fall of coal in gangway.
13	James Brown,	American,	Laborer,	50	S.	Drifton,		Arm fractured by being caught in pump. Outside.
21	Steve Rigda,	Hungarian,	Miner,	42	M.	Hazle Brook,		Leg and side of face fractured by being struck by flying fragments of runaway car on slope.
26	Frank Neilo,	Italian,	Laborer,	26	M.	Spring Brook,		Face and hands burned by explosion of gas in face of breast.
Feb. 6	Patrick O'Neil,	American,	Miner,	35	S.	Upper Lehigh,		Leg fractured by fall of slate in gangway.
	Frank Opalski,	Polish,	Laborer,	61	M.	Eckley,		Leg fractured by falling into chute in stripping. Outside.
7	Matthew Kearney,	American,	Bratticeman,	30	S.	Lattimer,		Hands and face seriously burned by explosion of gas.
	August Vech,	American,	Driver,	19	S.			Hands and face slightly burned.
	George Mikula,	Slavonian,	Patcher,	42	M.			Hands and face slightly burned.
10	George Tkas,	Slavonian,	Driver,	28	M.	Deringer,		Arm fractured by mules on gangway.
21	Salvator Scalise,	Italian,	Laborer,	50	M.	Hazle Brook,		Hip squeezed by car turning over on him. Outside.
27	Andrew Dudley,	Slavonian,	Laborer,	21	S.	Eckley,		Collar bone fractured by falling in stripping. Outside.
	Samuel Boughner,	American,	Engineer,	46	M.	Drifton,		Skull fractured by being struck by side of derailed locomotive when blocks slipped. Outside.
March 1	Daniel Rodgers,	American,	Patcher,	17	S.	Spring Brook,		Leg fractured by runaway car on slope.
	Jacob Leonhart,	Austrian,	Miner,	37	M.	Deringer,		Hand and eye injured by explosion of powder.
4	John Broadbent,	American,	Driver,	19	S.	Stockton,		Wrist fractured and side bruised by falling under cars on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
March 7	Edward Gallagher,	American,	Patcher,	17	S.	Spring Brook,	Luzerne,	Knee cut by falling under cars on gangway.
9	James Furey,	American,	Driver,	22	S.	Highland No. 2,		Collar bone fractured by being squeezed between car and gangway leg.
10	Charles Kostoski,	Polish,	Driver,	19	S.	Highland No. 5,		Ribs fractured by being caught between chute and car on gangway.
13	George Danko, Sr.,	Hungarian,	Carpenter,	49	M.	Drifton,		Leg crushed by being run over by locomotive. Outside.
	Joseph Latz,	Russian,	Miner,	50	M.	Highland No. 5,		Ankle fractured by fall of slate on gangway.
15	Mike Sabo,	Slavonian,	Laborer,	28	M.	Cranberry,		Skull fractured by being struck by piece of frozen clay from shot. Outside.
	Mike Mashenuski,	Hungarian,	Miner,	42	M.	Hazleton Shaft,		Hands and arm burned by hot ashes from chute at Stockton fire.
16	Mike Bellok,	Hungarian,	Trackman,	46	M.	Deringer,		Leg fractured by rail falling upon it on slope.
April 5	John Thrash,	American,	Patcher,	17	S.	Eckley,		Collar bone fractured by being squeezed between car and timber on gangway.
7	John Meadves,	Slavonian,	Driver,	20	S.	Jeddo No. 7,		Pelvis injured by being caught between derailed car and timber on gangway.
18	John Shebeck,	Polish,	Miner,	50	M.	Cranberry,		Face lacerated by fall of slate in face of breast.
24	Andrew Barwichock,	Hungarian,	Laborer,	47	M.	Drifton,		Leg fractured by gate weights falling upon him. Outside.
	Ben. Martine,	Russian,	Miner,	40	M.	Hazle Brook,		Leg fractured by fall of slate in face of gangway.
25	Mike Yetsina,	Lithuanian,	Miner,	26	S.	Cranberry,		Face and hands burned by explosion of powder while tamping hole.
	William Vanlofski,	American,	Oiler,	16	S.	Cranberry,		Foot bruised by being caught between bumpers of cars on turnout.

April	29	Henry Steinheiser,	American,	Driver,	20	S.	Spring Brook,	Luzerne,	Arm fractured by falling under cars on gangway.
May	1	Herbert Boyle,	American,	Doorboy,	17	S.	Deringer,		Face lacerated and teeth knocked out by kick from mule.
	3	John Poccurich,	Polish,	Laborer,	25	M.	Harleigh,		Pelvis fractured and injured internally by being squeezed between car and brattice on gangway.
	4	John Oberman,	German,	Company man,	25	S.	Cranberry,		Foot bruised by being caught between re-tracker and the bottom.
	13	Adam Divigili,	Tyrolean,	Miner,	30	M.	Jeddo No. 4,		Leg fractured by collar falling on him while raising it into its place on the legs.
	22	William Dinkie,	German,	Miner,	47	M.	Cranberry,		Leg fractured by fall of slate in breast.
	29	Stanley Glovotskie,	Polish,	Miner,	40	M.	Jeddo No. 7,		Leg fractured by small buggy running over end of road upon him.
		Joseph Gazick,	Hungarian,	Laborer,	19	S.	Hazle Brook,		Head and breast bruised by fall of coal in gangway.
		Robert Fitzpatrick,	Irish,	Miner,	38	M.	Jeddo No. 7,		Leg fractured by fall of coal in breast.
	31	Mike Baranish,	Greek,	Miner,	48	M.	Cranberry,		Face and arm lacerated and burned by the explosion of a shot that he thought had missed fire.
June	12	George Augustaites,	Lithuanian,	Miner,	38	M.	Deringer,		Leg fractured by fall of coal in breast.
	14	Michael Slavin,	Irish,	Miner,	41	M.	Spring Brook,		Skull fractured by explosion of powder while tamping hole.
		Wasil Matika,	Hungarian,	Laborer,	32	M.			Arm fractured.
	19	John Richkupskie,	Polish,	Miner,	36	M.	Jeddo No. 4,		Eyes blown out by explosion of blast when he returned to investigate after firing shot.
	23	Salvo Mastonovick,	Montenegrian.	Miner,	24	S.	Tomhicken,		Leg fractured by fall of coal at face of robbing.
	26	Joshua Griffith,	Welsh,	Assistant foreman	34	M.	Highland No. 2,		Face and hands burned by explosion of gas in breast.
		Peter Yanofskie,	Polish,	Miner,	40	M.			
	28	John Hivak,	Russian,	Driver,	18	S.	Ebervale,		Hip dislocated by being caught between derailed car and rib of gangway.
July	12	Toney Murphy,	Italian,	Laborer,	29	M.	Hazle Mountain,		Chest and abdomen injured by slide of rock in stripping. Outside.
	17	Mike Roman,	Italian,	Miner,	36	M.	Jeddo No. 4,		Heel cut off by fall of rock in cross-cut.
		Edgar Morgan,	American,	Driver,	18	S.	Sandy Run,		Leg crushed by being caught between cars on turnout at bottom of slope.
	25	August Becker,	German,	Miner,	54	M.	Hazle Brook,		Knee dislocated by fall of coal in breast.
	26	Thomas Gallagher,	Irish,	Miner,	38	M.	Highland No. 5,		Ankle fractured by fall of slate in gangway.
	27	Anton Domin,	Polish,	Miner,	35	M.	Highland No. 6,		Eyes blown out by blast in gangway.
		John Zubroski,	Slavonian,	Laborer,	20	S.	Harwood,		Ribs fractured by rush of coal in chute.
	31	John O'Donnell,	Irish,	Miner,	21	S.	Jeddo No. 7,		Three fingers crushed between bumpers of cars. Outside.
Aug.	4	Mike Bisura,	Slavonian,	Loader,	51	M.	Jeddo No. 4,		Leg fractured between gondolas near breaker. Outside.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 7	Mike Welshko,	Hungarian,	Miner,	50	M.	Jeddo No. 4,		Face and hands burned by explosion of gas in chute.
11	George Gasper,	Slavonian,	Miner,	24	M.	Harwood,		Foot bruised and toe crushed by lagging falling upon it.
18	Oscar Minsinger,	American,	Miner,	28	S.	Deringer,		Foot fractured and head cut by fall of coal in breast.
21	William Doman,	Polish,	Patcher,	17	S.	Cranberry,		Ear nearly severed by sharp edge of a car.
	Peter Misolesie,	Austrian,	Miner,	46	M.	Spring Mountain,		Head, shoulder and leg bruised by fall of slate in breast.
Sept. 5	Thomas Spawn,	Polish,	Miner,	32	M.	Jeddo No. 4,		Leg fractured by fall of coal at face of robbing.
6	Christ Throne,	German,	Miner,	37	M.	Cranberry,		Face burned and lacerated by blast that he thought had missed.
11	Joseph Jerola,	Italian,	Plateman,	22	S.	Spring Mountain,		Toe fractured and foot bruised by machinery in breaker. Outside.
14	Metro Banyas,	Hungarian,	Miner,	39	M.	Highland No. 5,	Luzerne,	Leg fractured by fall of slate in breast.
16	Harold White,	American,	Driver,	19	S.	Jeddo No. 4,		Elbow crushed by falling under cars on gangway.
19	Joseph Zanavish,	Polish,	Laborer,	23	S.	Harwood,		Jaw fractured and head bruised by fall of slate in breast.
20	Harry Hinkle,	American,	Laborer,	27	S.	Sandy Run,		Leg fractured by fall of coal in breast.
Oct. 3	James Sweeney,	American,	Driver,	23	S.	Harwood,		Ribs fractured by being squeezed between derailed car and rib.
4	William Yankofski,	Slavonian,	Miner,	45	M.	Cranberry,		Leg fractured by fall of coal in breast.
9	Anthony Yamazini,	Austrian,	Miner,	49	M.	Drifton,		Arm fractured between derailed car and rib on gangway.
10	Gustav Mutzkus,	German,	Miner,	40	M.	Upper Lehigh,		Collar bone fractured by fall of slate in breast.
11	Mike Boscheck,	Polish,	Doorboy,	17	S.	Cranberry,		Ribs fractured by cars on gangway.

Oct.	13	Lewis Middleton,	American,	Driver,	21	S.	Cranberry,			Leg injured by cars on turnout at bottom of slope.
	16	Charles Shell,	German,	Patcher,	18	S.	Jeddo No. 4,			Hip dislocated and chest squeezed by cars on gangway.
	17	George Korfanto,	Hungarian,	Hitcher,	24	S.	Highland No. 2,			Leg fractured by being struck by piece of coal that rolled down slope.
	26	Leo. Kometskie,	Polish,	Laborer,	22	S.	Ebervale,			Leg fractured by fall of coal on gangway.
	27	Easlie Sabota,	Italian,	Miner,	45	M.	Upper Lehigh,			Back and ankle injured by fall of slate at face of robbing.
	28	John Sabol,	Polish,	Driver,	22	S.	Highland No. 5,			Foot crushed between bumpers of cars on turnout at slope bottom.
	31	George Ezial,	Hungarian,	Miner,	32	S.	Deringer,			Face and eyes injured by blast in breast.
Nov.	2	Ben. Barkus,	Lithuanian,	Miner,	25	S.	Hazleton Shaft,			Fingers blown off by explosion of percussion cap in his hand.
		Anthony Pekela,	American,	Driver,	20	S.	Deringer,			Skull fractured by kick from mule.
	8	John Rachkiss,	Polish,	Miner,	45	M.	Cranberry,			Hip and back bruised by fall of slate in breast.
	15	George Keporick,	Slavonian,	Hitcher,	55	M.	Cranberry,	Luzerne,		Leg fractured by cars on stripping plane. Outside.
	17	John Krull,	Hungarian,	Driver,	32	M.	Highland No. 5,			Chest crushed by falling under cars on gangway.
	24	Steve Becker,	Hungarian,	Patcher,	17	S.	Jeddo No. 4,			Leg crushed by falling under cars on gangway.
Dec.	1	Frank Barnofski,	Polish,	Miner,	46	M.	Highland No. 2,			Spine fractured by fall of rock on gangway.
	6	Andrew Elijas,	Polish,	Miner,	35	M.	Ebervale,			Leg fractured by fall of coal on gangway.
	19	George Kimmel,	American,	Driver,	22	S.	Sandy Run,			Arm fractured by being caught between derailed car and prop.
	20	James Krig,	Italian,	Driver,	20	S.	Upper Lehigh,			Arm fractured by car falling upon him on slate bank. Outside.

FATAL ACCIDENTS

On the evening of October 3rd, at the Drifton Colliery of Coxe Brothers and Company, Incorporated, a serious and unexpected accident occurred, by which five men, Toney Plum, John Plum, Stephen Soffle, Angelo Nazardo and Joseph Camerano lost their lives. After the breaker had quit work for the day, Manus Carlin, the breaker foreman, was instructed to take down an old stack that stood over an air shaft and was partly surrounded by the refuse bank. The intention, and the instruction given the foreman, was to take the plank off from the top down, but when they arrived at the stack the men refused to go up on the ladder to begin at the top. After some discussion, it was decided to cut the stack around near the bottom, which was done, cutting the stack about two feet above the edge of the bank so as to avoid a rush of the bank into the shaft. After the cut was completed the men got on the north side of stack to push it over. When it was pushed over, the plank about six feet below the edge of the bank gave way and allowed the bank to rush in, sweeping the men into the air shaft, and before they could be rescued from below they were all dead from suffocation. The rest of the party, some on the east side and some on the west side of the stack, escaped, when they felt the material going from under their feet. It is very easy to see how this accident could have been avoided. Had the man in charge thought that the plank down in the shaft would give way, I am satisfied he would not have put the men on the north side of the stack.

CONDITION OF COLLIERIES

G. B. MARKLE AND COMPANY

Jeddo No. 4 slope, Jeddo No. 4 shaft, and Ebervale.—Ventilation, roads, drainage and condition as to safety, good.

Jeddo No. 7 No. 1 slope, and No. 3 slope.—Ventilation, roads drainage and condition as to safety, good.

Highland Nos. 2 and 5.—Ventilation, roads, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Hazleton No. 1, Hazleton Shaft, Spring Mountain and Spring Brook.—Ventilation, roads, drainage and condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Drifton, Deringer, Gowen, Tomhicken, Eckley, Buck Mountain and Stockton.—Ventilation, roads, drainage and condition as to safety, good.

PARDEE BROTHERS AND COMPANY

Lattimer.—Ventilation, roads, drainage and condition as to safety, good.

A. PARDEE AND COMPANY

Cranberry.—Ventilation good; roads and drainage fair; condition as to safety, good.

C. M. DODSON AND COMPANY

Beaver Brook.—Ventilation, roads and drainage fair; condition as to safety, good.

HARWOOD COAL COMPANY

Harwood.—Ventilation, roads and drainage fair; condition as to safety, good.

UPPER LEHIGH COAL COMPANY

Upper Lehigh.—Ventilation, roads, drainage and condition as to safety, good.

HAZLE MOUNTAIN COAL COMPANY

Hazle Mountain.—Ventilation, roads, drainage and condition as to safety, good.

M. S. KEMMERER AND COMPANY

Sandy Run.—Ventilation, roads, drainage and condition as to safety, good.

JOHN S. WENTZ AND COMPANY

Hazle Brook.—Ventilation, roads and drainage fair; condition as to safety, good.

HARLEIGH BROOKWOOD COAL COMPANY

Harleigh (Buck Mountain Slope).—Ventilation, roads, drainage and condition as to safety, good.

Spear Point, Primrose and Wharton Slopes.—Ventilation fair; roads and drainage good; condition as to safety, good.

WOLF COAL COMPANY

Wolf.—Ventilation, roads and drainage fair; condition as to safety, good.

THOMAS R. REESE AND SON

Dusky Diamond.—Ventilation, roads, drainage and condition as to safety, good.

IMPROVEMENTS

G. B. MARKLE AND COMPANY

Jeddo No. 4 Colliery.—Installed one 7-ton electric locomotive equipped with motor driven reel.

Erected scales for weighing retail coal.

Two fireproof concrete stables completed in the mines, total capacity, 50 mules.

A rock tunnel 390 feet long was driven, connecting Jeddo No. 4 bottom in Mammoth vein with the top of slope B in Buck Mountain vein.

New hoisting engine, 16 by 30, rated H. P. 250, erected at top of slope B, Buck Mountain vein.

In breaker, a complete rock crushing plant was installed to pulverize mine rock and slate from breaker, consisting of one traveling platform, one jaw rock crusher, one revolving pulverizer, one bucket elevator and pocket. This crushed material, in addition to the culm from breaker, is flushed into the Mammoth vein, through one 8-inch and one 10-inch bore hole.

New slush troughs built from breaker to 8-inch and 10-inch bore holes. One barley coal pocket built in breaker.

Ebervale Colliery.—Retail coal scales erected.

Installed hoisting engine 16 by 30, rated H. P. 250.

A new reservoir, capacity 8 million gallons, was excavated at South Ebervale and a 6-inch wood pipe line laid from this reservoir to connect with 6-inch line going to Ebervale.

One 7-ton electric locomotive installed in the Mammoth vein.

The construction of a fireproof mule stable in rock commenced; capacity, 24 mules.

The banks of the center basin canal, between the west property line of Ebervale to a point west of Jeddo No. 4 shaft, were raised to a height of 12 feet above the bed of channel; also the connection of the basin canal with the Big Black Creek canal moved about 200 feet east, necessitating the digging of about 1,400 feet of new canal.

A new road built across Ebervale basin from No. 1 to No. 3.

Jeddo No. 7 Colliery.—The light and loaded tracks for railroad cars completed; also system of track layout completed for mine cars of standard gauge, and for stripping cars of narrow gauge to bring coal from stripping.

Retail coal scales erected.

Breaker equipped with vacuum heating system.

A 50,000 gallon fresh water tank was erected on steel tower.

The stripping of the south outcrop of the Mammoth vein was continued during the year with four steam shovels; two shovels on earth and rock excavation, and two loading coal.

One locomotive house built.

Two buckwheat coal jigs installed in breaker.

One double dwelling built in Harleigh Village.

Breaker completely equipped with electric light.

A slush trough, composed of baffles and silt pickets was built from settling tank at breaker to No. 1 slope, in order that all culm possible should be taken from breaker water, and the water be allowed to flow back into the mines and be re-pumped to the surface. This arrangement is used during a scarcity of water.

Highland No. 5 Colliery.—A 7-ton electric locomotive was installed in Tunnel "O" section.

Retail coal scales erected.

Three slopes were sunk in the overlying veins, No. 8 slope 451 feet in length, No. 9 slope 318 feet in length, No. 10 slope 182 feet in length. A conveyor line was built alongside of breaker plane for handling the coal from these slopes.

A fireproof concrete stable was built in the Buck Mountain vein with sufficient room for 58 mules.

One Ayers separator installed in the breaker.

Main hoisting engines equipped with hand brake.

The rolling stock was increased by the addition of 40 new cars.

Highland No. 2 Colliery.—A new barn was erected outside for the storage of hay and grain.

One egg coal jig installed.

A new carpenter and blacksmith shop built.

Outside tracks changed at bridge for self-acting turnout.

A 40-ton locomotive put in service, and new house built for it.

One thousand and fifty-nine feet of tunnel driven in bottom rock of the Buck Mountain vein, forming a portion of a rock tunnel and rock slope, for drainage of water and haulage of coal from slope No. 1 to slope No. 2, and lowering the foot of No. 2 slope in the bottom rock of the Buck Mountain vein.

A 12-inch column pipe line was extended from the top of slope to the top of the breaker.

The six 500 H. P. Heine boilers were equipped with the Parsons system of blowers and dumping grates.

All the coal pockets in the breaker were enlarged and the building extended to cover the new pockets.

Ten new mine cars were built.

At Highland No. 6 slope, sheds were built for housing coal at night to prevent it from freezing.

An oil-burning locomotive installed in the mine and storage tanks for oil erected outside.

Jeddo and Japan.—Nine new double dwellings were built in the village of Japan. Neat picket fences were erected around them and also around the dwellings in Jeddo.

One key-seating machine installed in Jeddo machine shop, also a bolt cutting machine.

The office, machine shop, store, carpenter shop and boarding house equipped with vacuum heating system.

A new stable erected to replace the one destroyed by fire.

LEHIGH VALLEY COAL COMPANY

The comparatively steady work during 1911 required considerable gangway work in the Hazleton basin to maintain the production, 21,735 feet having been driven as follows:

Tracy,	3,885 feet.
Diamond,	4,795 feet.
Orchard,	4,520 feet.
Primrose,	1,335 feet.
Mammoth,	575 feet.
Wharton,	700 feet.
Gamma,	1,905 feet.
Buck Mountain,	4,020 feet.

Considerable work was done on the property to replace inflammable structures and heavy timbering by concrete and iron construction.

Hazleton No. 1 Colliery.—New stable of concrete was constructed in the Wharton vein, 5th lift, No. 1 slope. Pump-room in rock was constructed in the Wharton, 7th lift, No. 1 slope. Wooden floors removed from pump-rooms and replaced by concrete. Stone walls were built on 6th lift to secure slope pillars. Stable concreted in No. 8 slope section.

Top of manway concreted and steel supports put in place of timber, etc. Pumps are being installed on 7th lift in Wharton vein and connection made with present column line in main slope through a shaft there by removing fire risk by the pumps in Mammoth vein.

Throughout Nos. 1 and 8 slopes preparations are being made to install electricity, to be furnished by the Harwood Power Company. A sub-station will be erected at the breaker and the cable run through a bore hole to the Buck Mountain vein, then follow through old

breasts to the 7th lift, from which a slope is to be sunk to a lower level to open a new lift of the Buck Mountain vein. The turnouts have been completed and the room is made for the electric hoist.

An 8-inch drill hole was put down through the old No. 6 workings and extended to the Buck Mountain vein, for the purpose of ascertaining the elevation of Buck Mountain, Wharton and Gamma veins in the basin. It is intended to extend the 5th lift tunnel to the south and drive a plane to the Wharton basin, and open these veins, bringing the coal to Hazleton No. 1 breaker.

Elevators were erected to handle refuse from boiler house and breaker.

Coal was also made available by the stripping operations, which were extended by excavating 56,647 yards, making a total of 530,518 cubic yards up to January 1, 1912.

Hazleton Shaft Colliery.—At this colliery, which also handles Eckley, Stockton, Tomhicken and Deringer coal, an elevator was erected to handle breaker wash.

The inside work was pushed in all directions to maintain production.

Two short tunnels were driven, one 60 feet from Orchard to Diamond, and one 40 feet, from Primrose to Orchard.

The new pumping plant, on elevation of 1,050 feet, was completed and started July 3. The principal object of this installation was to lower the water in the Diamond basin and finally in the Stockton section, which at once would open a large field of coal and overcome for the future the difficulty to maintain and increase the production.

Over 1,000 feet of test holes were driven in the so called "fire section," west of Stockton No. 8 slope, which proved that no fire existed at present time, so that the greatest obstacle to lowering the water on the East Sugar Loaf land has been removed. The water is tapped by several 4-inch drill holes, and finally taken through 2½-inch drill holes to the new pumping plant mentioned above. The area to be drained is very extensive and a second pump provided for when the pump and sump room were made, will be set up.

Very little work was done on the East Sugar Loaf Coal Company land (Stockton No. 2), as the working level was submerged for over one-third of the year. Only 615 feet of gangway driven: Tracy, 165 feet; Diamond, 290 feet; Orchard, 160 feet.

On the No. 5 stripping, by excavating in eastern direction, 79,436 yards were removed, making a total of 612,602 yards to January 1, 1912.

Spring Mountain Colliery.—Gangway work was pushed as fast as condition of veins permitted 3,993 feet of gangway having been driven: Wharton, 275 feet; Buck Mountain, 3,183 feet; Lykens, 535 feet.

Several hundred feet of gangway reopened south of and adjoining the stripping section, in which 181,237 cubic yards were removed, bringing the total to 424,068 yards to January 1, 1912.

The slope paralleling the Western boundary pillar in the Buck Mountain vein has been extended and two levels started eastward. A rock slope has been branched off to open the Lykens vein, and a little east of old Slope No. 1 a slope is being sunk across the pitch on the Primrose vein, which had been tested by bore holes and was exposed in caves on the Mammoth vein.

Preparations are being made to install electricity, furnished by the Harwood Power Company. A bore hole was sunk near the rope hole for boundary slope, through which the cable will be taken into the mines.

Spring Brook Colliery.—The breaker, which had been used as a washery, has been abandoned and is being dismantled. A new washery has been built and put in operation preparing the waste banks.

Considerable improvements were made by replacing inflammable structures and heavy timbers by concreting and steel supports—for instance, at bottom of Slope No. 1, the shaft was retimbered and pump foundation concreted. Stables, feed houses and harness rooms were also replaced by concrete structures.

Substantial and convenient manways were driven connecting No. 1 slope and No. 2 slope workings and providing the second opening.

Pump-room in rock slope was completed and concrete overcast made on 2nd lift, slope No. 2. This slope has also been resilled and new rails put down.

A mile of gangway was also driven, viz: Wharton, 145 feet; Buck Mountain, 1,315 feet; Lykens, 3,670 feet, and 606 feet of gangway reopened in the Mammoth vein.

A trial slope in the Lykens vein, off the East gangway in the Underground Buck Mountain slope, Slope No. 1, has been sunk to the Basin, which was reached at a distance of 210 feet.

Machinery was installed on the 5th lift, Lykens vein, Slope No. 2, to follow the spooned dipping eastward with a dip gangway.

COXE BROTHERS AND COMPANY, INCORPORATED

Drifton Colliery: No. 1 Slope.—No actual opening work was done in this slope, except 530 feet of gangway driven off the west tunnel in the Wharton vein.

Coal was taken from robbings in the Buck Mountain in lieu of the coal obtained previously from the George Moore tract, which was not released again until the latter part of December, 1911, so that practically no mining was done during 1911 from the Black Creek Improvement Company's land. All the other coal came from the Wharton and Mammoth veins inside, off gangways driven several years ago, and the strippings principally, which were extended, and from which 81,140 yards were removed, which brings the total yardage of all classes up to 3,057,638 by January 1, 1912.

No. 2 Slope.—The actual opening work was confined to driving gangways in the subterranean slope, following the synclinal. The East gangway in the top split has reached the upper level and the face of the West gangway is within 860 feet of the Lattimer boundary line. Several counters are driving on the flat saddle workings to the south, and a tunnel 130 feet long was driven near the saddle from the top split to the bottom split.

The concrete stable, mentioned in last year's report, has been completed.

Deringer Colliery.—No new developments can be reported from this colliery, except possibly that the No. 18 West gangway, bottom level, Gowen Slope No. 4, has passed through the fault and entered on territory which previously was considered barren, disturbed by faults. Also the No. 1 West gangway, Gowen No. 3, is continuing unexpectedly in very good coal beyond what was supposed the extent of the coal veins.

In the stripping in the Deringer North basin 135,862 yards were excavated, making 313,549 yards removed up to January 1, 1912.

Tomhicken Slope.—No new work was opened at this place and all coal is obtained by pillar mining above water level. The coal is taken to the Hazleton shaft breaker.

Eckley Colliery.—Principally reopening work was done in this colliery, with exception of 720 feet of gangway in the Wharton, Slope No. 6, where driving to the west it reached the crop, across the saddle cutting the vein off, so that these workings do not connect with the overlying veins recently developed in the adjoining property, tributary to Highland No. 5. A proving slope 160 feet in length, was sunk across the saddle to the south, which possibly is in the same basin as the Highland No. 5 top vein workings; the synclinal was struck at 160 feet from the saddle. There were no indications whether the basin dipped east or west and no proving done to demonstrate it. To the east the gangway is following the spoon, and it is contemplated to sink a proving hole to determine the basin and decide on future developments.

The strippings have been continued and at Buck Mountain slope No. 1 basin, 354,713 yards were removed or a total of 2,055,193 yards, and at Buck Mountain Slope No. 6, 137,676 yards were removed, bringing the total up to 872,999 yards by January 1, 1912.

The Eckley-Buck Mountain coal is now being taken to the Hazleton Shaft colliery and the Eckley breaker is operated as a washery.

Stockton Slope.—The work in this slope was greatly interfered with by the water rising above the working levels. East and West gangways were extended on the north dip of the Gamma vein; the East gangway has reached the line after driving 175 feet in 1911, while the West gangway advanced 550 feet. An airway was driven from the southwest counter in the Wharton to give the necessary ventilation.

PARDEE BROTHERS AND COMPANY

Lattimer Colliery.—A tunnel 150 feet in length has been driven from the upper to the lower split of the Buck Mountain vein at an elevation of 1,515 on the south side of basin near the eastern end of property.

The tunnel from the East Gamma gangway slope No. 9, near the eastern end of the property has been extended south 150 feet to the first split of the Buck Mountain vein.

A tunnel 60 feet in length has been driven from the Gamma to the Wharton vein top of the run west side of slope No. 9 to facilitate transportation.

A tunnel 150 feet in length has been driven from the Gamma to the Buck Mountain vein off the West gangway of Slope No. 12 and work commenced on a pump-house for a Duplex pump, which will pump from this point to the top of the breaker.

No. 12 drainage tunnel has been extended 350 feet during the year and a connection made with Slope "B" of the Jeddo Tunnel Company at an elevation of 1,094.

A new manway has been driven to the surface from the West gangway upper lift of Slope No. 22.

An airway has been driven to the surface from the East gangway upper lift of Slope No. 22, and an 8-foot Sturtevant fan erected at the mouth of it.

A plane has been constructed and placed in operation at the east end of the Orphans' Home.

With the addition of an elevator and two sets of rolls, and several shaking screens, a new dry side has been placed in operation in No. 4 breaker.

Two Fairbanks railroad track scales have been constructed and placed in operation during the year, one on the empty track east of breaker, and the other on the loaded track west of breaker.

At Milnesville the shaft has been completed to the No. 17 or Primrose level, through which all of the coal from this level is brought to the surface.

A tunnel has been driven south from the shaft a distance of 210 feet to a lower split of the Buck Mountain vein, and a rock hole 16 feet driven up vertically to the top split of the Buck Mountain vein in No. 1 basin.

Slope No. 26 has been completed to the basin, from which gangways are being worked towards Hollywood.

An airway has been driven to the surface from the West gangway of Slope No. 26 at the mouth of which a 6-foot electrical-driven Guibal fan has been erected.

At Hollywood a tunnel 33 feet in length has been driven south from the Wharton vein at an elevation of 1,440, and a gangway driven west in same 375 feet to where it broke out into the stripping. The track was turned south and a large chute constructed, which will take what Primrose and Mammoth coal remains above this elevation.

C. M. DODSON AND COMPANY

Beaver Brook Colliery.—A new fresh water tank, with a capacity of 15,000 gallons, erected.

Eight thousand feet of 6-inch fresh water pipe line laid from No. 4 well to the dam.

A fresh water pump installed to pump water from dam to tank.

An 8-inch fresh water feed pump installed in the boiler house.

A 5,000-ton boiler fuel storage plant erected.

All outside buildings repainted.

Harwood electric lights installed in all outside buildings for lighting.

New carpenter, machine and blacksmith shop erected.

Two thousand seven hundred feet of 6-inch fresh water line laid from the water tank to the boiler house.

A complete telephone system connecting the superintendent's office with all slopes and engine houses.

In No. 11 slope a tunnel 50 feet in length was driven from the North dip of the Buck Mountain vein to the North dip of the Gamma vein.

A tunnel 100 feet in length from the North dip Gamma vein to the South dip Gamma.

A new fireproof stable completed and work is also progressing on making the pumphouses fireproof.

In slope No. 10 a new fireproof concrete stable erected, also concrete pump-house.

In slope No. 5 a new rock slope 500 feet in length was driven from No. 15 Lykens into No. 5 Buck Mountain.

A tunnel 100 feet in length was driven from the Lykens vein to the basin of the Buck Mountain from the top level Lykens, in what is known as No. 5 extension.

UPPER LEHIGH COAL COMPANY

Upper Lehigh Colliery.—Extensive changes were made in the breaker. Revolving screens on east and west sides were replaced with two single deck 28-foot Parrish shakers making five sizes of coal, pea, chestnut, small stove, large stove and egg coal.

Changed location of crushers and three sets of rolls.

Placed small shaker at forward rolls to remove smaller sizes before going through the lower rolls. Five Falker jigs were installed, four on chestnut and one on pea coal; two spirals on stove coal were installed; also two sets of elevators to elevate stove coal to the top of spirals.

Rebuilt mud screen shaker, double deck shaker on smaller sizes, and bony coal shaker.

Installed on the No. 2 washery one small shaker at platform; also two spirals, one on chestnut and one on stove coal.

Three steam shovels were in operation during the year and removed 352,871 cubic yards of earth, 122,956 cubic yards of rock, 20,672 cubic yards of slate, and 558 cubic yards of ashes.

HAZLE MOUNTAIN COAL COMPANY

Hazle Mountain Colliery.—The 6 by 8 rock hole, 117 feet long, started last year has been finished. This hole was driven from the Wharton vein in the No. 2 basin, to the basin of the top split of the Mammoth, which was stripped, and all the coal has been removed.

In slope No. 2 workings a rock hole was driven from the bottom split of the Mammoth vein to the basin of the top split of the Mammoth, close to the western end of the property.

One hundred and fifty feet of old gangway reopened and timbered which had been caved by former operations. Robbing is continued in the old No. 3 slope workings.

In the No. 1 slope the pump houses and medical room have been made fireproof to conform with the law.

What is known as a court house has been erected at No. 1 for the inspection of the coal as it comes from the mine.

Four thousand feet east of No. 1 slope a diamond drill bore hole was put down a distance of 235 feet into the green sandstone.

One new egg coal plunger jig installed in the breaker.

At Slope No. 5, a 1,000-gallon capacity water tank was erected, which will furnish water for boilers, wash-house, stable and fire protection.

The workings in this slope have advanced east to the spoon end of basin, and robbing has commenced. The west side workings are still continuing in the solid.

The pump-house and medical room have been made fireproof by lining with iron to conform with the law.

M. S. KEMMERER AND COMPANY

Sandy Run Colliery.—A new settling tank was erected in the breaker to collect the silt which is being turned into mine cave holes.

In No. 10 slope a tunnel 76 feet in length was driven from the Gamma vein to the Buck Mountain vein.

In No. 2 slope a tunnel, 104 feet in length, was driven from Gamma vein to the Buck Mountain vein.

JOHN S. WENTZ AND COMPANY

Hazle Brook Colliery.—Slope No. 1: A tunnel 110 feet in length was driven from the No. 2 vein to the No. 1 vein to get the basin coal from the No. 1 vein, and also to do the final robbing in the No. 2 vein by means of rock holes from the No. 2 vein up to the No. 1 vein.

An inside slope was driven a distance of 170 feet, starting on the top of the West slope, and dipping west 20 degrees across the pitch, to work out the coal left in the No. 2 vein. A small set of double engines placed to hoist from this slope.

Reopened 600 feet of old gangway on the North dip of No. 2 vein.

Slope No. 3.—A tunnel 60 feet in length was driven from No. 2 vein to the No. 1 vein and 200 feet of gangway driven to the west in a small leader of coal.

A Jeanesville pump 18 by 8 by 18 was installed in this slope, and a 3-inch steam line to furnish steam for same; also a 6-inch column line from the pump.

No. 5 Slope.—A tunnel 45 feet in length was driven through saddle in basin at the eastern end of No. 5, and 1,200 feet of gangway reopened and track relaid in same in the No. 2 vein; also 300 feet of the East gangway reopened on the South dip.

A slope was driven a distance of 150 feet about half way between No. 5 slope and the eastern end of property.

No. 10 slope west gangway was driven to the line a distance of 1,000 feet.

On the surface at this slope near western end of property a ditch was cut to carry the sulphur creek from the crop of the No. 4 vein.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Y. M. C. A. Building, Hazleton, April 4 and 5. The Board of Examiners was composed of: David J. Roderick, Mine Inspector; John J. Turnbach, Superintendent, Beaver Brook; Frederick Young, Miner, Hazleton; Peter G. Gallagher, Miner, Freeland.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Arthur S. Walker, Jeanesville; Bernard Phillips, Jeddo; John Spire, Eckley; David Thomas, Upper Lehigh; Anthony Anella, Milnesville; George Gernhardt, West Hazleton; Thomas J. Ferry, Beaver Brook.

Assistant Mine Foremen

John Gardner, Lansford; Thomas Barnes, Summit Hill; Charles Anthony, Sandy Run; Joseph B. Conlin, Lattimer; James Jerome Clark, Freeland; Charles Keenan, Upper Lehigh; John K. O'Donnell, Eckley; Adolph Busch, West Hazleton; John W. Corby, Nesquehoning; George T. Morgan, Nesquehoning; Harry McElmoyle, Nesquehoning; Gustave Carter, McAdoo; Bennett P. Dunstan, Nesquehoning; Conrad Broadt, Hazleton.

TWELFTH DISTRICT

SCHUYLKILL COUNTY

Mahanoy City, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines for the Twelfth Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,
P. C. FENTON, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	9
Number of mines,	15
Number of mines in operation,	15
Number of tons of coal shipped to market,	2,614,839
Number of tons used at mines for steam and heat,	378,708
Number of tons sold to local trade and used by employes,	50,240
Number of tons produced,	3,043,787
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	5,111
Number of persons employed outside,	2,089
Number of fatal accidents inside of mines,	18
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	25
Number of non-fatal accidents outside,	.....
Number of tons of coal produced per fatal accident inside,	169,099
Number of persons employed per fatal accident inside,	284
Number of persons employed per fatal accident outside,	418
Number of persons employed per non-fatal accident inside,	204
Number of persons employed per non-fatal accident outside,	.....
Number of wives made widows,	10
Number of children made orphans,	28
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	14
Number of compressed air locomotives used inside,	14
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	13
Number of electric motors used outside,	.....
Number of fans in use,	15
Number of furnaces in use,	.....
Number of gaseous mines in operation,	15
Number of non-gaseous mines in operation,	.....
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company, ...	2,491,674
Lehigh Valley Coal Company, ...	552,113
Total, ...	3,043,787

Production by Counties

Schuylkill, ...	3,043,787

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron, Co.,	17	4	21	20	--------	20	127,349	108,247	4,286	1,861	6,147	252	465	214	--------
Lehigh Valley Coal Co.,	1	1	2	5	--------	5	552,113	110,423	825	228	1,053	825	228	165	--------
Totals and averages for district,	18	5	23	25	--------	25	169,099	121,751	5,111	2,089	7,200	284	418	204	--------

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	----	----	----	----	1	----	1	----	----	1	4	22.22
Falls of slate,	1	----	----	----	----	----	----	----	----	----	1	----	2	11.11
Mine cars,	----	1	----	----	----	----	1	----	----	----	----	----	2	11.11
Explosions of gas,	----	----	----	----	----	1	----	----	----	----	----	----	1	5.56
Explosions of powder and dynamite,	----	----	----	----	2	----	----	----	----	1	----	----	3	16.66
Blasts, premature and otherwise,	----	----	2	----	----	----	----	----	----	----	----	----	2	11.11
Falling into shafts,	----	----	----	----	----	1	----	----	----	----	----	----	1	5.56
Falling into slopes, etc.,	----	----	----	----	----	----	----	----	----	----	----	1	1	5.56
Crushed at batteries,	----	----	----	1	----	----	----	----	----	----	----	----	1	5.56
Struck by timber,	----	----	----	----	----	----	----	----	----	----	1	----	1	5.55
Totals,	1	2	2	1	2	2	2	----	1	1	2	2	18	100.00
Causes of Accidents Outside														
Cars,	----	----	1	----	----	----	----	----	----	----	----	----	1	20.00
Machinery,	1	----	----	----	----	----	----	----	----	----	----	----	1	20.00
Mules,	----	----	----	----	----	----	----	----	----	----	----	1	1	20.00
By falling,	----	----	----	1	----	----	1	----	----	----	----	----	2	40.00
Totals,	1	----	1	1	----	----	1	----	----	----	----	1	5	100.00
Grand totals inside and outside,	2	2	3	2	2	2	3	----	1	1	2	3	23	----

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	3	----	----	----	----	----	----	1	2	----	1	----	7	28.00
Mine cars,	----	----	----	----	----	----	1	----	----	----	----	----	1	4.00
Explosions of gas,	2	----	----	----	----	3	----	----	----	----	----	----	5	20.00
Explosions of powder and dynamite,	1	----	1	----	2	----	----	1	----	----	1	----	6	24.00
Blasts, premature and otherwise,	----	2	1	----	----	----	----	1	----	----	----	----	4	16.00
Falling into slopes, etc.,	----	1	----	----	----	----	----	----	----	----	----	----	1	4.00
Crushed at batteries,	----	----	----	1	----	----	----	----	----	----	----	----	1	4.00
Totals,	6	3	2	1	2	3	1	3	2	----	2	----	25	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	2	2	1	2	1	1	----	----	1	1	1	12
Miners' laborers,	1	----	----	----	----	1	----	----	1	----	----	1	4
Drivers and runners,	----	----	----	----	----	----	1	----	----	----	----	----	1
Timbermen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	1	2	2	1	2	2	2	----	1	1	2	2	18
Outside													
Blacksmiths and carpenters,	1	----	----	----	----	----	----	----	----	----	----	----	1
Loaders,	----	----	1	----	----	----	----	----	----	----	----	----	1
Drivers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Laborers,	----	----	----	----	----	----	1	----	----	----	----	----	1
Oilers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Totals,	1	----	1	1	----	----	1	----	----	----	----	1	5
Grand totals inside and outside,	2	2	3	2	2	2	3	----	1	1	2	3	23

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	6	2	1	----	2	2	----	3	2	----	2	----	20
Miners' laborers,	----	1	1	1	----	1	1	----	----	----	----	----	5
Totals,	6	3	2	1	2	3	1	3	2	----	2	----	25
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	----	1	2	----	----	----	----	----	----	1	5
Polish,	1	----	2	----	----	----	----	----	----	----	----	----	3
Slavonian,	----	----	1	----	----	----	----	----	----	----	----	1	2
Lithuanian,	----	2	----	1	----	2	2	----	1	1	2	1	12
Greek,	----	----	----	----	----	----	1	----	----	----	----	----	1
Totals,	2	2	3	2	2	2	3	----	1	1	2	3	23

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	----	1	----	----	----	----	----	----	----	1
Polish,	3	----	1	----	----	2	1	1	----	----	----	----	8
Italian,	----	----	1	----	----	----	----	----	----	----	----	----	1
Lithuanian,	3	3	----	1	1	1	----	1	2	----	2	----	14
Greek,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	6	3	2	1	2	3	1	3	2	----	2	----	25

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.																
Ellangowan Colliery:																
Ellangowan,	Slope,	Gaseous,	Fans,	20	6.6	6.0	80	1.4	Guibal,	Steam,	---	7	66,593	24,460	67,286	253
Ellangowan,	Shaft,			15	7.0	6.6	72	.5			---	8	71,366	20,300	72,059	222
St. Nicholas Colliery:																
St. Nicholas,	Slope,	Gaseous,	Fan,	21	7.0	6.6	90	2.4	Guibal,	Steam,	---	10	46,930	38,330	47,250	153
Suffolk Colliery:																
Suffolk,	Slopes,	Gaseous,	Fans,	18	6.6	5.6	60	1.4	Guibal,	Steam,	---	8	53,861	28,565	54,583	83
Suffolk,				18	6.6	5.6	60	1.4			---	9	35,911	18,000	36,599	91
Maple Hill Colliery:																
Maple Hill,	Shafts,	Gaseous,	Fans,	21	7.0	6.6	75	1.7	Guibal,	Steam,	---	10	87,830	45,470	89,020	386
Maple Hill,				21	7.0	6.6	75	1.7			---	9	82,450	44,130	83,290	345
Tunnel Ridge Colliery:																
Tunnel Ridge,	Slope,	Gaseous,	Fan,	21	7.0	6.3	75	2	Guibal,	Steam,	---	8	109,254	55,567	130,934	352
Mahanoy City Colliery:																
Mahanoy City,	Slope,	Gaseous,	Fan,	21	7.0	6.6	86	2	Guibal,	Steam,	---	7	21,830	16,000	22,570	32
North Mahanoy Colliery:																
North Mahanoy,	Slope,	Gaseous,	Fan,	21	7.6	6.3	78	1.5	Guibal,	Steam,	---	9	126,870	65,270	130,315	292

Lehigh Valley Coal Co.																
Primrose Colliery																
Primrose,	Slope, ---	Gaseous,	Fans, ---	16	4.0	4.6	100	1.5	Guibal, -	Steam, ---	---	8	39,600	32,000	40,500	95
				10	4.4	4.3	90	1			---	7	33,600	31,200	34,000	131
Park No. 2 Colliery:																
Park No. 1,	Slopes, --	Gaseous,	Fans, ---	16	4.0	4.5	90	1.5	Guibal, --	Steam, ---	---	9	21,300	15,680	25,370	121
Park No. 2,				14	4.0	4.0	90	1.3			---	9	65,200	20,000	66,500	234
Park No. 3,	Slopes, --	Gaseous,	Fan, ----	16	5.4	4.5	85	1.5	Guibal, --	Steam, ---	---	6	70,200	46,000	78,360	180
Park No. 4,																

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.						
Ellangowan,	Schuylkill,	W. J. Richards,	Pottsville	Reese Tasker,	Pottsville,	P. and R.
St. Nicholas,						
Suffolk,						
Maple Hill,						
Tunnel Ridge,						
Mahanoy City,						
North Mahanoy,						
Lehigh Valley Coal Co.						
Park No. 2,*	Schuylkill,	F. M. Chase,	Wilkes-Barre,	W. Underwood,	Mahanoy City,	Lehigh Valley
Primrose,						

*Park No. 2 taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
Ellangowan,	Schuylkill,	332,337	41,753	1,376	375,466	263	1,091	4	----	246,625	70,236	----------	75
St. Nicholas,		243,143	35,993	416	279,552	261	626	2	4	63,325	72,592	4,409	50
Suffolk,		234,348	21,816	1,171	257,335	261	709	2	3	107,425	47,288	----------	64
Maple Hill,		636,205	40,270	56	676,531	259	1,567	6	6	456,225	82,005	1,075	79
Tunnel Ridge,		153,730	62,780	----------	216,510	259	621	1	1	30,750	70,174	8,426	59
Mahanoy City,		207,217	36,636	38,237	282,090	262	695	----	----	146,950	39,005	577	76
North Mahanoy,		357,966	41,583	4,641	404,190	266	838	6	6	144,875	53,734	----------	77
Totals,		2,164,946	280,831	45,897	2,491,674	.....	6,147	21	20	1,196,175	434,974	14,487	480
Lehigh Valley Coal Co.													
Park No. 2,*	Schuylkill,	290,704	60,740	2,143	353,587	266	639	----	4	143,785	53,947	53	183
Primrose,		159,189	37,137	2,200	198,526	259	414	2	1	93,975	33,192	109	39
Totals,		449,893	97,877	4,343	552,113	.....	1,053	2	5	237,760	87,139	162	222
Grand totals,		2,614,839	378,708	50,240	3,043,787	.....	7,200	23	25	1,433,935	522,113	14,649	702

*Park No. 2 taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911, total production up to that time, 209,425 tons.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	.....	.....	120	15,000	15,000	11	13	8	234	34,197	23	46,085	10,447	2	12
Lehigh Valley Coal Co.,		.....	.....	29	6,550	6,550	3	1	5	63	6,948	9	14,753	4,087	1	2
Totals,	.....	.....	.....	149	21,550	21,550	14	14	13	297	41,145	32	60,838	14,534	3	14

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	8	63	----	1,458	752	273	65	15	752	900	4,286	------	18	68	208	415	101	35	1,016	1,861	6,147
Lehigh Valley Coal Co.,		3	3	48	190	305	73	5	14	38	146	825	1	2	21	50	31	34	9	80	228	1,053
Totals,		11	66	48	1,648	1,057	346	70	29	790	1,046	5,111	1	20	89	258	446	135	44	1,096	2,089	7,200

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	23	19	22	22	25	25	17	17	22	23	23	23	261
Lehigh Valley Coal Co.,		24	20	22	22	24	24	16	19	24	23	23	23	264

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 24	Samuel White,	American,	Carpenter,	21	S.			Primrose,		Fatally injured. While sawing a plank with a circle saw the plank caught, striking him in the stomach. Died January 26. Outside.
	Mike Shukus,	Polish,	Laborer,	23	S.			Suffolk,		Killed by fall of slate at face of robbing.
Feb. 2	Mike Vilencavage,	Lithuanian,	Miner,	37	M.			Maple Hill,		Fatally injured by being caught by trip of mine cars on gangway. Died February 6.
9	Mike Nowgent,	Lithuanian,	Miner,	41	M.	1	5	Maple Hill,		Killed by fall of coal at face of breast.
Mar. 10	John Gefski,	Polish,	Miner,	43	M.	1	4	Maple Hill,		Fatally injured by premature blast at face of breast. Died March 16.
16	Andrew Poviliek,	Slavonian,	Miner,	34	M.	1	3	North Mahanoy,		Killed by premature blast at face of breast.
23	Stanley Cusack,	Polish,	Car loader,	53	M.	1	5	Maple Hill,		Killed by being run over by railroad engine at breaker. Outside.
April 13	Joe. Priscavage,	Lithuanian,	Oiler,	19	S.			Maple Hill,	Schuylkill,	Fatally injured by falling down steps in breaker. Died April 17. Outside.
21	Samuel Graham,	American,	Miner,	33	M.	1	3	North Mahanoy,		Fatally injured by rock rolling on him at battery. Died same evening.
May 6	Edward Langford,	American,	Miner,	28	M.	1	2	North Mahanoy,		Killed by explosion of dynamite on traveling road.
	Edward Troutman,	American,	Miner,	28	M.	1	2			
June 8	John Covilskey,	Lithuanian,	Laborer,	21	S.			Primrose,		Killed by falling down underground shaft.
	Adam Shelinskey,	Lithuanian,	Miner,	30	S.			St. Nicholas,		Fatally injured by explosion of gas at face of breast.
July 12	Matt. Lesowskie,	Lithuanian,	Driver,	43	S.			Maple Hill,		Fatally injured by being caught by trip of cars on gangway. Died July 15.
15	John Smith,	Lithuanian,	Miner,	57	M.	1	2	Ellangowan,		Killed by fall of coal at face of breast.
20	George Antoblick,	Greek,	Laborer,	51	M.	1		Suffolk,		Fatally injured by falling off mine car on tipple. Died July 24. Outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 11	Peter Regutskie,	Lithuanian,	Laborer,	28	S.			Ellangowan,		Fatally injured by fall of coal in chute. Died September 21.
Oct. 16	Joe. Gromanavage,	Lithuanian,	Miner,	40	M.	1	2	St. Nicholas,		Killed by explosion of dynamite in heading.
Nov. 10	Joe. Kowkas,	Lithuanian,	Miner,	58	M.			Ellangowan,		Killed by fall of slate at face of breast.
25	Frank Louskus,	Lithuanian,	Timberman,	35	S.			North Mahanoy,	Schuylkill,	Killed by piece of timber falling on him on slope.
Dec. 12	Charles Zetkas,	Lithuanian,	Miner,	35	M.			Ellangowan,		Killed by fall of coal at face of chute.
19	Martin Marushes,	Slavonian,	Laborer,	35	S.			Tunnel Ridge,		Killed by falling down pumpway.
29	Joseph Hood,	American,	Driver,	19	S.			North Mahanoy,		Killed by being dragged by mule. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	William Molshilsko, --	Polish, ----	Miner, ----------	27	M.	Park No. 2, -------		Hand blown off while thawing dynamite on gangway.
17	Anthony Nimcavage,--	Polish, ----	Miner, ----------	27	S.	Maple Hill, -------		Burned by gas at face of breast.
	Domnick Muckalivage,	Polish, ----	Miner, ----------	24	S.			
18	Joseph Sherum, ------	Lithuanian,	Miner, ----------	29	M.	Maple Hill, -------		Injured by fall of coal at face of breast.
25	Anthony Recolitus,----	Lithuanian,	Miner, ----------	27	M.	North Mahanoy, ---		Injured by fall of coal at face of breast.
30	John Deliuskie, ------	Lithuanian,	Miner, ----------	37	M.	Park No. 2, -------		Injured by fall of coal at face of heading.
Feb. 1	Anthony Keluskey, ----	Lithuanian	Miner, ----------	40	M.	Tunnel Ridge, -----		Injured by premature blast on gangway.
2	Enoch North, --------	Lithuanian,	Miner, ----------	42	S.	Maple Hill, -------		Injured by premature blast in cross heading.
3	Charles Chamos, -----	Lithuanian,	Laborer, ----------	31	S.	Primrose, ----------		Injured by falling into a breast cross-heading in pillar.
Mar. 10	Joseph Laraski, ------	Polish, ----	Laborer, ----------	20	S.	Maple Hill, -------	Schuylkill, ------	Injured by premature blast at face of breast.
28	Frank Damorrow, ----	Italian, ----	Miner, ----------	50	M.	North Mahanoy, ---		Injured by explosion of powder on gangway.
April 27	Joseph Sherkness, ---	Lithuanian,	Laborer, ----------	27	S.	Park No. 2, -------		Injured by rush of coal at battery.
May 6	John Cooper, --------	American,--	Miner, ----------	26	S.	North Mahanoy,----		Injured by explosion of dynamite on traveling road.
	William Wassil, ------	Lithuanian,	Miner, ----------	25	S.			
June 8	Thomas Slovtiskey, --	Lithuanian,	Miner, ----------	28	S.	St. Nicholas, ------		Injured by explosion of gas at face of chute.
20	George Taylor, -------	Polish, ----	Miner, ----------	31	S.	Suffolk, ----------		Injured by explosion of gas at face of chute.
	John Borak, ---------	Polish, ----	Laborer, ----------	26	S.			
July 15	Felix Kissel, --------	Polish, ----	Laborer, ----------	40	M.	Maple Hill, -------		Injured by mine cars on plane.
Aug. 12	Andrew Solmon, ------	Greek,------	Miner, ----------	33	M.	Park No. 2, -------		Injured by explosion of dynamite on gangway.
29	Mike Bushinskie, ----	Polish, ----	Miner, ----------	38	M.	Suffolk, ----------		Injured by premature blast at face of heading.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 30	William Coages,	Lithuanian,	Miner,	31	M.	North Mahanoy,	Schuylkill,	Injured by fall of coal at face of chute.
Sept. 20	Paul Lasnick,	Lithuanian,	Miner,	25	S.	St. Nicholas,		Injured by fall of coal at face of breast.
27	Stiney Cherneskey,	Lithuanian,	Miner,	37	M.	North Mahanoy,		Injured by fall of coal at face of breast.
Nov. 11	George Wolotofsky,	Lithuanian,	Miner,	58	M.	St. Nicholas,		Injured by explosion of dynamite caps in heading.
22	John Sedolnick,	Lithuanian,	Miner,	41	M.	St. Nicholas,		Injured by fall of coal in chute.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Ellangowan, St. Nicholas, Suffolk, Maple Hill, Tunnel Ridge, Mahanoy City and North Mahanoy.—Safety conditions, ventilation and drainage, good.

LEHIGH VALLEY COAL COMPANY

Park No. 2.—Safety conditions, ventilation and drainage, good. Taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911.

Primrose.—Safety conditions, ventilation and drainage, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Ellangowan Colliery.—A 10 by 12-inch Flory engine was installed for rock slope.

Suffolk Colliery.—A haulage tunnel was driven to connect No. 2 slope level with Maple Hill No. 2 plane, total length, 157⅓ yards.

Maple Hill Colliery.—Installed a pair of 32 by 60-inch hoisting engines for No. 2 shaft and a 21-foot diameter exhaust fan to operate on a rock airway driven on 45° pitch Maple Hill No. 2 plane level. A steel head-frame for No. 2 shaft was completed. A tunnel was completed from Skidmore to Seven-Foot vein, 145⅔ yards. A three-compartment building was erected with First Aid and Ambulance rooms, lamp room and employes' register room.

Tunnel Ridge Colliery.—The following tunnels were driven: One from surface to the Lykens vein on water level, total distance 300 yards; one on water level from Bottom split to Seven-Foot vein, total distance, 76⅓ yards; one from Seven-Foot to Buck Mountain vein, total length 26 yards; one on water level from Bottom split to Buck Mountain vein, total length, 75 yards. The Elmwood tender slope was timbered with steel girders resting on concrete walls a distance for 126 feet from surface.

Mahanoy City Colliery.—A haulage tunnel was driven through Seven-Foot saddle, total length 18⅓ yards. The Big Tracy vein was developed from a rock hole 19 yards long on 30 degrees pitch from Diamond vein. An electric haulage was installed on the water level, third level, and underground shaft.

North Mahanoy Colliery.—A traffic tunnel was driven from Buck Mountain vein, Schuylkill Section first lift, to West Bottom split gangway, total length, 129⅔ yards. The wooden timber at the 8th level bottom of No. 1 slope, Schuylkill Section, was replaced with 64 sets of concrete arches averaging six-foot centers.

LEHIGH VALLEY COAL COMPANY

Park No. 2 Colliery.—A new fanway is being driven in Buck Mountain vein No. 2 slope and is nearly completed. At Meyersville slope a new landing has been made on the surface, doing away with inside haulage from slope to breaker. This colliery was taken over from Lentz Coal Company July 1.

Primrose Colliery.—A locomotive road was built from Primrose to Park No. 4 to take the coal for preparation at Primrose colliery.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Assistant Mine Foremen was held at Pottsville, March 22 and 23. The Board of Examiners was composed of P. C. Fenton, Mine Inspector, Mahanoy City; James L. Reese, Superintendent, Park Place; Robert Roberts, Miner, St. Nicholas; P. H. Devine, Miner, Shaft P. O.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Robert Redclift.

Assistant Mine Foremen

Nicholas Noll, Michael Kelly, Benjamin Lloyd, Joseph Testen, James Bennett, Dennis McGuire, Mahanoy City.

THIRTEENTH DISTRICT

SCHUYLKILL COUNTY

Shenandoah, Pa., March 4, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Anthracite Mining Laws, I transmit herewith my Annual Report of the Thirteenth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,

A. B. LAMB, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	18
Number of mines,	36
Number of mines in operation,	34
Number of tons of coal shipped to market,	2,967,396
Number of tons used at mines for steam and heat,	400,061
Number of tons sold to local trade and used by employes,	79,818
Number of tons produced,	3,447,275
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,983
Number of persons employed outside,	2,996
Number of fatal accidents inside of mines,	28
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	36
Number of non-fatal accidents outside,,	7
Number of tons of coal produced per fatal accident inside,	123,117
Number of persons employed per fatal accident inside,	178
Number of persons employed per fatal accident outside,	749
Number of persons employed per non-fatal accident inside,	138
Number of persons employed per non-fatal accident outside,	428
Number of wives made widows,	17
Number of children made orphans,	40
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	44
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	5
Number of electric motors used outside,	.....
Number of fans in use,	29
Number of furnaces in use,	.....
Number of gaseous mines in operation,	28
Number of non-gaseous mines in operation,	6
Number of new mines opened,	4
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,769,001
Lehigh Valley Coal Company,	552,486
Thomas Colliery Company,	394,543
Susquehanna Coal Company,	307,003
Cambridge Coal Company,	74,217
M. A. Gerber and A. S. Seaman,	22,885
Harleigh-Brookwood Coal Company,	20,045
William Niswenter,	4,153
Oxford Coal Company,	147,058
Brighton Coal Company,	108,854
H. H. Smith and Company,	92,030
Total,	3,447,275

Production by Counties

Schuylkill,	3,447,275

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	13	2	15	18	4	22	136,077	98,278	3,440	1,583	5,023	265	791	191	396
Lehigh Valley Coal Co.,	3	2	5	12	2	14	184,102	46,040	633	424	1,057	211	212	53	212
Thomas Colliery Co.,	5	-------	5	2	1	3	69,909	174,771	314	236	550	63	-------	157	236
Susquehanna Coal Co.,	2	-------	2	4	-------	4	153,501	76,751	400	216	616	200	-------	100	-------
Cambridge Coal Co.,	3	-------	3	-------	-------	-------	24,739	-------	30	46	76	10	-------	-------	-------
M. A. Gerber and A. S. Seaman,	2	-------	2	-------	-------	-------	11,442	-------	78	68	146	39	-------	-------	-------
Miscellaneous Companies	-------	-------	-------	-------	-------	-------	-------	-------	88	423	511	-------	-------	-------	-------
Totals and averages for district,	28	4	32	36	7	43	123,117	95,758	4,983	2,996	7,979	178	749	138	428

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	1	1	....	....	....	....	....	1	1	....	1	6	21.43
Falls of slate,	....	1	2	....	3	....	....	....	....	....	1	1	8	28.57
Falls of roof,	....	....	....	....	1	1	1	....	....	....	....	....	3	10.72
Mine cars,	1	....	....	....	....	1	....	....	1	1	....	....	4	14.29
Suffocation by gas, etc.,	....	....	....	....	1	....	....	....	....	....	....	....	1	3.57
Explosions of powder and dynamite,	....	....	....	....	....	....	....	....	1	....	....	....	1	3.57
Falling into slopes, etc.,	....	....	....	1	....	....	....	....	1	....	....	....	2	7.14
Struck by timber,	....	....	....	....	....	1	....	....	....	1	....	....	2	7.14
Miscellaneous,	....	....	....	....	....	1	....	....	....	....	....	....	1	3.57
Totals,	2	2	3	1	5	4	1	....	4	3	1	2	28	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	1	1	....	....	....	....	....	2	50.00
Struck by rope,	....	....	....	1	....	....	....	....	....	....	....	....	1	25.00
By falling,	....	....	....	....	....	....	....	....	....	....	1	....	1	25.00
Totals,	....	....	....	1	....	1	1	....	....	....	1	....	4	100.00
Grand totals inside and outside,	2	2	3	2	5	5	2	....	4	3	2	2	32	.....

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	....	....	....	2	....	....	....	....	1	....	4	11.11
Falls of slate,	....	....	....	....	....	....	1	....	1	....	1	1	4	11.11
Mine cars,	1	....	....	1	....	2	1	....	1	....	1	....	7	19.44
Explosions of gas,	1	....	....	....	1	....	....	1	4	1	....	1	9	25.00
Explosions of powder and dynamite,	....	....	....	....	....	1	....	....	1	....	....	....	2	5.56
Blasts, premature and otherwise,	....	2	....	....	....	....	....	....	....	....	....	....	2	5.56
Falling into shafts,	....	....	1	....	....	....	....	....	....	....	....	....	1	2.78
Struck by coal,	....	....	....	1	....	1	....	....	1	....	....	....	3	8.33
Struck by piece of rock,	....	....	....	....	....	....	....	1	....	....	....	....	1	2.78
Struck by timber,	....	....	....	....	....	1	....	....	1	....	....	....	2	5.55
By rush of water,	....	....	....	....	....	....	....	1	....	....	....	....	1	2.78
Totals,	2	3	1	2	1	7	2	3	9	1	3	2	36	100.00
Causes of Accidents Outside														
Machinery,	....	....	....	....	....	1	....	....	....	....	....	....	1	14.28
Struck by timber,	....	....	....	....	....	1	....	....	....	....	....	1	2	28.58
Struck by wrench,	....	....	....	....	1	....	....	....	....	....	....	....	1	14.28
Struck by piece of coal,	....	....	....	....	....	1	....	....	....	....	....	....	1	14.28
By falling,	....	1	....	....	....	....	....	1	....	....	....	....	2	28.58
Totals,	....	1	....	....	1	3	....	1	....	....	....	1	7	100.00
Grand totals inside and outside,	2	4	1	2	2	10	2	4	9	1	3	3	43	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	2	1	4	1	1	----	1	2	1	2	18
Miners' laborers,	1	----	1	----	1	1	----	----	2	1	----	----	7
Drivers and runners,	----	----	----	----	----	1	----	----	----	----	----	----	1
Bottommen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Motormen,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	2	2	3	1	5	4	1	----	4	3	1	2	28
Outside													
Topmen,	----	----	----	1	----	----	----	----	----	----	----	----	1
Drivers,	----	----	----	----	----	----	1	----	----	----	----	----	1
Laborers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Plane-tenders,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	----	----	----	1	----	1	1	----	----	----	1	----	4
Grand totals inside and outside,	2	2	3	2	5	5	2	----	4	3	2	2	32

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,	----	----	----	----	----	----	----	----	1	----	----	----	1
Miners,	1	1	----	----	1	3	----	2	5	1	1	----	15
Miners' laborers,	----	1	----	----	----	2	1	1	3	----	1	1	10
Drivers and runners,	1	----	----	1	----	2	1	----	----	----	----	----	5
Chargemen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Bottommen,	----	----	1	1	----	----	----	----	----	----	1	----	3
Civil engineers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	2	3	1	2	1	7	2	3	9	1	3	2	36
Outside													
Foremen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Blacksmiths and carpenters,	----	1	----	----	----	1	----	----	----	----	----	----	2
Car runners,	----	----	----	----	----	1	----	----	----	----	----	----	1
Conveyor-tenders,	----	----	----	----	----	1	----	----	----	----	----	----	1
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Timber-cutters,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	----	1	----	----	1	3	----	1	----	----	----	1	7
Grand totals inside and outside,	2	4	1	2	2	10	2	4	9	1	3	3	43

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American	1			1		2			1		1		6
English									1				1
Welsh										1			1
Irish	1		1						1	1			4
Polish			1		3	2						2	8
Slavonian					1								1
Lithuanian		1			1	1	1			1	1		6
Russian		1							1				2
Greek				1									1
Tyrolean			1										1
Hebrew							1						1
Totals	2	2	3	2	5	5	2		4	3	2	2	32

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American	1	1			1	2			1		1	1	8
Irish				1						1			2
German								1					1
Polish					1	2		2				1	6
Slavonian			1			1							2
Lithuanian	1	3		1		3	2	1	6		2		19
Austrian												1	1
Russian						1			1				2
Greek						1							1
Syrian									1				1
Totals	2	4	1	2	2	10	2	4	9	1	3	3	43

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits or air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
West Shenandoah Colliery:															
West Shenandoah,	Slope,	Gaseous,	2 Fans,	18 21	6.6 7.0	6.0 6.0	70 90	1 3	Guibal,	Steam,	14	130,307	70,316	138,815	389
Kohinoor Colliery:															
Kohinoor,	Shaft,	Gaseous,	Fan,	18	6.0	4.5	75	.9	Guibal,	Steam,	7	46,312	25,933	47,061	179
Turkey Run Colliery:															
Turkey Run No. 1,	Drift,	Gaseous,	Fan,	21	7.0	4.5	90	3	Guibal,	Steam,	9	159,760	86,615	164,840	592
Turkey Run No. 5,	Slope,	Gaseous,	Fan,	21	7.0	4.5	90	3	Guibal,	Steam,	9				
Turkey Run No. 8,	Slope,	Gaseous,	Fan,	8	------	------	184	.9	Guibal,	Electricity,	7				
Shenandoah City Colliery:															
Shenandoah City,	Shaft,	Gaseous,	Fan,	21	7.0	6.5	80	2	Reading,	Steam,	10	222,236	124,318	224,143	608
Shenandoah City,	Slope,	Gaseous,	Fan,												
Shenandoah City,	Drift,	Non-gas.,	Fan,	12	4.0	------	30	------	Guibal,	Steam,	1				
Boston Run Colliery:															
Boston Run,	Slope,	Gaseous,	Fan,	21	7.0	6.5	80	1.8	Guibal,	Steam,	----	70,260	35,440	75,240	281

Gilberton Colliery:															
Gilberton No. 1,	Slope,	Gaseous,	Fan,	21	7.0	6.0	80	1.8	Guibal,	Steam,	9	91,570	46,720	91,800	422
Gilberton No. 2,	Slope,	Gaseous,	Fan,												
Knickerbocker Colliery:															
Knickerbocker No. 1,	Slopes,	Gaseous,	Fan,	18	------	------	96	1.8	Guibal,	Steam,	9	60,645	56,639	61,100	342
Knickerbocker No. 2,															
Draper Colliery:															
Draper No. 1,	Shaft,	Gaseous,	Fan,	18	6.6	6.0	80	1.6	Guibal,	Steam,	10	122,200	108,674	133,575	248
Draper No. 2,	Slope,	Gaseous,	Fan,	12	------	------	80	1.6							
Indian Ridge Colliery:															
Indian Ridge,	Shaft,	Gaseous,	2 Fans,	18	6.0	4.5	75	1.1	Guibal,	Steam,	10	149,542	91,640	149,677	379
				15	5.0	4.75	80	1							
Indian Ridge, Top Split,	Slope,		Natural,	------	------	------	------	------	------						
Indian Ridge, Holmes No. 1,	Slope,		Fan,	12	4.0	4.0	45	.3	Guibal,						
Indian Ridge, Holmes No. 2,	Slope,		Fan,	5	2.0	------	45	.1	Reading,						
Indian Ridge, Primrose,	Slope,		Fan,	5	2.0	------	45	.1	Reading,						
Lehigh Valley Coal Co.															
Packer No. 2 Colliery:															
Packer No. 1,	Slopes,	Gaseous,	Fan,	20	6	5.5	64	.8	Guibal,	Steam,	----	71,000	45,000	73,450	206
Packer No. 2,															
Packer No. 3 Colliery:															
Packer No. 3,	Slope,	Gaseous,	Fan,	18	6	5.4	70	.6	Guibal,	Steam,	----	108,250	70,650	112,470	235
Packer No. 3,	Drift,	Non-gas.,	Natural,												
Packer No. 4 Colliery:															
Packer No. 4,	Slope,	Gaseous,	Fan,	20	6.9	5	62	1	Guibal,	Steam,	----	87,465	60,250	91,640	192
Thomas Colliery Co.															
Kehley Run Colliery:															
Kehley Run No. 1,	Slopes,	Gaseous,	Fan,	16	5	5	100	1.5	Guibal,	Steam,	10	84,820	63,365	85,304	314
Kehley Run No. 3,			Fan,	8	4	3	150	1.6	Guibal,	Steam,	6	40,515	24,955	40,810	
Kehley Run No. 4,			Natural,	------	------	------	------	------	------	------	----	14,430	8,890	14,505	
Susquehanna Coal Co.															
William Penn Colliery:															
William Penn No. 1,	Drift,	Non-gas.,	Fan,	18	7	6	70								
William Penn,	Shaft,	Gaseous,	Fan,	18	7	6	70	1.8	Guibal,	Steam,	9	135,930	118,750	153,450	400
William Penn No. 2,	Drift,	Non gas.,	Fan,	18	7	6	35	.8	Vulcan,						
Cambridge Coal Co.															
Cambridge Colliery:															
Cambridge,	Drift,	Non-gas.,	Fan,	8	3	2	100	------	Cole,	Steam,	3	10,025	70,650	11,100	76

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits or air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
M. A. Gerber and A. S. Seaman															
*Furnace Colliery:															
Furnace,	Drift,	Gaseous,	Natural,												
Harleigh-Brookwood Coal Co.															
Stanton Colliery:															
Stanton, Four Foot,	Slope,	Gaseous,	Fan,	4			100		Guibal,	Steam,		4,000	4,000	4,300	84
Stanton, Buck Slope,	Slope,	Gaseous,	Fan,	16			75	1.5	Guibal,	Steam,		21,500	12,000	22,000	
William Niswenter															
Niswenter Colliery:															
Niswenter,	Drift,	Non-gas.,	Natural,												

*Abandoned July, 1911.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co. West Shenandoah, Kohinoor, Turkey Run, Shenandoah City, Boston Run, Gilberton, Knickerbocker, Draper, Indian Ridge, Plank Ridge Washery,	Schuylkill,	W. J. Richards,	Pottsville,	Reese Tasker,	Pottsville,	P. and R.
Lehigh Valley Coal Co. Packer Nos. 2, 3, 4,	Schuylkill,	F. M. Chase,	Wilkes-Barre,	J. M. Humphrey,	Centralia,	Lehigh Valley
Thomas Colliery Co. Kehley Run,	Schuylkill,	Frank A. Hill,	Pottsville,	John Price,	Shenandoah,	P. and R.
Susquehanna Coal Co. William Penn,	Schuylkill,	Robert A. Quin,	Wilkes-Barre,	Edw. A. Van Horn,	Shaft,	Pennsylvania
Cambridge Coal Co. Cambridge,	Schuylkill,	D. R. James,	Shenandoah,	D. R. James,	Shenandoah,	P. and R.
M. A. Gerber and A. S. Seaman Furnace,*	Schuylkill,	M. A. Gerber,	Tamaqua,	J. Berkelbach,	Gilberton,	P. and R.
Harleigh-Brookwood Coal Co. Stanton,	Schuylkill,	Frank A. Hill,	Pottsville,			P. and R.
William Niswenter Niswenter,	Schuylkill,	William Niswenter,	Shenandoah,			P. and R.

*Abandoned July, 1911.

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Oxford Coal Co. Oxford Washery,	Schuylkill,	Frank A. Hill,	Pottsville,	F. L. Kloch,	Shenandoah,	P. and R.
Brighton Coal Co. Brighton Washery,	Schuylkill,			J. A. Davis,	Gilberton,	P. and R.
H. H. Smith and Co. Hudson Washery,	Schuylkill,	Henry Meyers,	Minersville,	M. E. Jones,	Shenandoah,	P. and R.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
West Shenandoah,							794	1	2	127,725	25,975	5,375	33
Kohinoor,	Schuylkill,	544,214	65,028	15	609,257	258	216	1	1	28,250	9,333	----------	14
Turkey Run,							736	2	2	94,375	65,748	210	42
Shenandoah City,		190,311	43,956	54,140	288,407	259	823	2	9	87,375	24,118	13,973	76
Boston Run,		159,360	42,134	----------	201,494	260	430	1	----	21,675	70,800	----------	17
Gilberton,		137,323	32,587	4,876	174,786	257	648	2	4	7,750	70,014	35,989	48
Knickerbocker,	Schuylkill	162,547	----------	----------	162,547	263	436	2	----	41,150	21,125	29,002	40
Draper,		128,069	23,144	----------	151,213	262	407	2	4	8,250	72,809	31,125	42
Indian Ridge,		115,219	14,068	----------	129,287	259	452	2	----	57,900	20,314	----------	56
Plank Ridge Washery,		47,758	2,712	1,540	52,010	131	81	----	----	----------	----------	----------	3
Totals,		1,484,801	223,629	60,571	1,769,001	.....	5,023	15	22	474,450	380,236	115,674	371
Lehigh Valley Coal Co.													
Packer No. 2,		*154,632	17,046	----------	171,678		256	2	5	49,975	17,866	----------	30
Packer No. 3,	Schuylkill,	*172,180	24	----------	172,204	269	286	----	6	22,325	23,243	----------	----
Packer No. 4,		130,583	69,394	8,027	208,004		515	3	3	84,225	9,701	----------	45
Totals,		457,395	86,464	8,027	552,486	.....	1,057	5	14	156,525	50,810	----------	110
Thomas Colliery Co.													
Kehley Run,	Schuylkill,	322,213	22,925	4,405	349,543	276	550	5	3	128,750	49,300	----------	40

*Coal prepared and shipped from Packer No. 4.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Susquehanna Coal Co.													
William Penn,	Schuylkill,	268,040	36,496	2,467	307,003	249	616	2	4	65,200	47,375	250	64
Cambridge Coal Co.													
Cambridge,	Schuylkill,	69,751	4,073	393	74,217	288	76	3	----	4,375	1,150	----------	6
M. A. Gerber and A. S. Seaman													
Furnace,	Schuylkill,	20,035	2,850	----------	22,885	135	146	2	----	----------	11,400	----------	11
Harleigh-Brockwood Coal Co.													
Stanton,	Schuylkill,	17,000	3,045	----------	20,045	69	258	----	----	625	4,200	----------	9
William Niswenter													
Niswenter,	Schuylkill,	701	100	3,352	4,153	268	17	----	----	----------	1,150	----------	5
Oxford Coal Co.													
Oxford Washery,	Schuylkill,	140,995	6,060	3	147,058	285	80	----	----	----------	1,425	----------	1
Brighton Coal Co.													
Brighton Washery,	Schuylkill,	99,964	8,890	----------	108,854	240	88	----	----	----------	----------	----------	----
H. H. Smith and Co.													
Hudson Washery,	Schuylkill,	86,501	5,529	----------	92,030	183	68	----	----	----------	----------	----------	----
Grand totals,	----------	2,967,396	400,061	79,818	3,447,275	----------	7,979	32	43	829,925	547,046	115,924	617

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	.....	.....	122	15,600	15,600	19	5	5	246	30,805	20	31,211	8,080	3	10
Lehigh Valley Coal Co.,		.....	.....	20	4,200	4,200	5	.....	.....	63	6,382	8	6,212	4,881	.....	1
Thomas Colliery Co.,		.....	.....	13	1,950	1,950	8	.....	.....	15	1,213	4	5,000	4,000	.....	.....
Susquehanna Coal Co.,		.....	.....	15	2,300	2,300	1	.....	.....	20	1,600	1	1,300	724	.....	1
Cambridge Coal Co.,		.....	.....	4	450	450	1	.....	.....	4	100	.....	.....	.....	.....	.....
M. A. Gerber and A. S. Seaman,		.....	.....	4	330	330	.....	.....	.....	9	125	1	360	145	.....	.....
Harleigh-Brookwood Coal Co.,		.....	.....	5	600	600	2	.....	.....	11	500	1	400	250	.....	1
William Niswenter,		.....	.....	1	25	25	.....	.....	.....	1	15	.....	.....	.....	.....	.....
Oxford Coal Co.,		.....	.....	4	500	500	3	.....	.....	4	350	.....	.....	.....	.....	.....
Brighton Coal Co.,		.....	.....	8	900	900	3	.....	.....	13	628	.....	.....	.....	.....	.....
H. H. Smith and Co.,		.....	.....	3	375	375	2	.....	.....	7	244	.....	.....	.....	.....	.....
Totals,	.....	.....	.....	199	27,230	27,230	44	5	5	393	41,962	35	44,483	18,080	3	13

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	8	61	----	862	894	185	21	22	736	651	3,440	----	15	63	221	214	80	32	958	1,583	5,023
Lehigh Valley Coal Co.,		3	13	----	239	138	50	13	14	------	163	633	1	4	30	60	34	20	6	269	424	1,057
Thomas Colliery Co.,		1	2	4	150	83	12	5	4	53	------	314	1	3	13	26	50	3	4	136	236	550
Susquehanna Coal Co.,		1	1	6	132	84	39	2	------	9	126	400	1	2	26	30	34	12	6	105	216	616
Cambridge Coal Co.,		1	1	1	10	13	2	------	------	2	------	30	1	1	2	7	16	----	1	18	46	76
M. A. Gerber and A. S. Seaman,		1	----	1	28	18	10	5	2	2	11	78	1	1	5	5	19	----	1	36	68	146
Harleigh-Brookwood Coal Co.,		1	----	1	30	35	2	------	6	5	4	84	1	1	41	13	12	----	1	105	174	258
William Niswenter,		1	----	----	2	------	1	------	------	------	------	4	----	----	----	1	6	----	----	6	13	17
Oxford Coal Co.,		----	----	----	----	----	----	----	----	----	----	----	1	1	3	10	7	2	1	55	80	80
Brighton Coal Co.,		----	----	----	----	----	----	----	----	----	----	----	1	2	5	12	8	----	1	59	88	88
H. H. Smith and Co.,		----	----	----	----	----	----	----	----	----	----	----	1	1	6	9	2	4	1	44	68	68
Totals,		17	78	13	1,453	1,265	301	46	48	807	955	4,983	9	31	194	394	402	121	54	1,791	2,996	7,979

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	22	18	21	21	25	25	18	17	21	25	24	23	260
Lehigh Valley Coal Co.,		25	19	23	22	25	25	17	18	24	24	24	23	269
Thomas Colliery Co.,		22	18	26	20	23	23	23	26	24	25	23	23	276
Susquehanna Coal Co.,		22	18	21	20	22	22	21	22	20	20	20	21	249
Cambridge Coal Co.,		24	24	27	22	23	23	22	22	25	25	25	26	288
M. A. Gerber and A. S. Seaman,		19	18	21	20	21	21	15	----	----	----	----	----	135
Harleigh-Brookwood Coal Co.,		4	----	----	----	----	----	----	----	----	16	24	25	69
William Niswenter,		23	21	24	23	23	21	20	21	22	23	24	23	268

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 6	Henry Sandt,	American,	Miner,	42	M.	1	6	William Penn,		Instantly killed by fall of coal away from face. While he was making room for relief timber, the timber collapsed.
	Patrick Trainer,	Irish,	Laborer,	57	M.	1	....	Gilberton,		Killed by cars on gangway. He became confused and ran in front of trip of cars.
Feb. 13	Matt Lesinsky,	Russian,	Miner,	48	M.	1	3	Packer No. 4,		Instantly killed by fall of slate near face. After firing hole he returned to heading when feathered edge piece of slate fell from top.
17	Jno. Shuppis,	Lithuanian,	Miner,	65	M.	1	....	Knickerbocker,		Fatally injured by fall of coal near face. Died May 19.
March 2	Martin Dean,	Irish,	Laborer,	31	M.	1	....	West Shenandoah,	Schuylkill,	Killed by fall of slate. He and another miner were sent by the foreman to pull down a heavy wing of slate on the rib of plane. They were unable to pull it down with bars and were in the act of putting hole in it when it fell suddenly and crushed Dean.
27	Rudolph Branch,	Tyrolean,	Miner,	28	M.	....	....	Kehley Run,		Killed by fall of coal near face.
30	Peter Stabinsky,	Polish,	Miner,	42	M.	1	....	Turkey Run,		Killed by fall of slate near face.
April 27	Michael Haley,	American,	Topman,	21	S.	....	....	Packer No. 2,		Instantly killed. He was in the act of stepping on the bumper of car as it was landing on the top of slope, when the main link suddenly snapped and struck him on the head. Outside.
	Emil Kossar,	Greek,	Miner,	38	M.	1	2	Kehley Run,		Killed by falling down manway. He had fired two holes and had returned to face of breast when some coal fell and in trying to reach a place of safety he fell down manway.

May	5	John Sincavage,	Polish,	Miner,	24	M.	1	1	Kehley Run,		Killed by fall of rock near face.
	11	Philip Norsavage,	Lithuanian,	Miner,	34	S.			Knickerbocker,		Smothered by rush of fine coal and dirt.
	27	William Miller,	Polish,	Miner,	60	M.			Cambridge,		Killed by fall of slate near face.
		Daniel Blasco,	Slavonian,	Laborer,	29	S.					
	28	William Stabiskie,	Polish,	Miner,	40	M.	1	7	Furnace,		Killed by fall of slate away from face.
June	2	Michael Feres,	Polish,	Miner,	48	M.	1	4	Shenandoah City,		Killed between car and timber on gangway. He stood on the wrong side of track and was crushed against timber by locomotive.
	27	Alex Zagonsky,	Polish,	Laborer,	30	S.			Turkey Run,		Killed by fall of rock away from face.
		Frank Gounley,	American,	Plane tender,	18	S.			Packer No. 4,		Killed by cars. He was standing behind an empty trip of cars at bottom of dirt plane. The bottom man had signaled the engineer to lower a loaded trip of dumpers to the loaded track, but in some unknown manner the trip came down on the empty track and bumped the empty trip standing there, and Gounley was crushed under trip. Outside.
	29	Michael Birmingham,	American,	Driver,	24	S.			Furnace,		He was found dead alongside trip of loaded cars. The mule was also standing on side of trip on top of Birmingham.
	30	Anthony Matsko,	Lithuanian,	Bottomman,	24	S.			Boston Run,	Schuylkill,	Instantly killed by being struck by timber. Some timber had been displaced on the main hoisting slope. After some investigation the men started up the slope very slowly on the gunboat and when near the lift above a piece of timber rolled down and caught Matsko.
July	6	John Hartnetkiewicz,	Lithuanian,	Miner,	24	S.			William Penn,		Killed by fall of rock near face.
	11	Joseph Goodall,	Hebrew,	Driver,	25	M.	1	1	Gilberton,		Killed by falling in front of moving dumper. Outside.
Sept.	14	Benjamin Green,	English,	Miner,	53	M.	1	6	Packer No. 2,		Killed by fall of coal away from face.
	25	Howard Sneddon,	American,	Laborer,	28	M.	1	1	Draper,		Instantly killed by falling down timber hole. They were lowering timber down a hole from the surface and had placed a rope around a pulley attached to the top collar for the purpose of pulling the timber close to the hole. Sneddon climbed up on top of the collars and the top collar pulled off the legs and dropped him down the hole.
	25	Thomas Kilty,	Irish,	Motor tender,	27	S.			Kohinoor,		Killed by cars on gangway. He was riding in front of trip of eight cars on motor and in some unknown manner he fell in front of trip and was rolled along under the axles.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 27	August Esaconis,	Russian,	Laborer,	21	S.			Kehley Run,		Instantly killed by explosion of dynamite. He brought a stick of dynamite, cap and fuse to face of gangway, and in some unknown manner the dynamite exploded in his hands.
Oct. 10	Peter Nelavetkie,	Lithuanian,	Miner,	32	M.	1	1	Indian Ridge,		Killed by fall of coal away from face.
12	Joseph Mathias,	Welsh,	Laborer,	42	S.			Cambridge		Killed by car. A loaded car ran over end of rails and crushed him against face of gangway.
27	Martin Bane,	Irish,	Miner,	39	M.	1	5	Kehley Run,		Instantly killed by being struck on head by a prop that was pushed out by pressure of gob.
Nov. 14	Samuel Willison,	American,	Laborer,	55	M.			Draper,	Schuylkill,	Fatally injured. While helping to unload a large timber truck he fell to the tracks below. Outside.
28	William Kanopitkie,	Lithuanian,	Miner,	28	M.	1	1	Indian Ridge,		Fatally injured by fall of slate near face. He fired a shot, which displaced a prop, and while in the act of resetting the prop a piece of slate fell from the top, breaking his back. Died December 18.
Dec. 19	Paul Onescavage,	Polish,	Miner,	28	S.			Packer No. 4,		Fatally injured by fall of coal near face. While drilling a hole a piece of coal from top fell and struck him, breaking his back. Died February 3, 1912.
29	Enoch Gitson,	Polish,	Miner,	24	M.	1	2	Shenandoah City,		Killed by fall of slate near face.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of Accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Joseph Krow,	Lithuanian,	Miner,	43	M.	William Penn,		Burned by gas. He went up chute with naked lamp.
18	Henry Wisner,	American,	Driver,	18	S.	Draper,		Arm broken by falling under cars on gangway.
Feb. 8	Stain Kutskill,	Lithuanian,	Miner,	27	M.	William Penn,		Hips injured by premature blast.
	George Youzitskie,	Lithuanian,	Laborer,	28	M.			Head and hands lacerated.
16	Frank Kufer,	American,	Carpenter,	31	M.	Draper,		Arm fractured by falling. While carrying a large block of wood he slipped and fell. Outside.
16	William Barlavage,	Lithuanian,	Timberman,	39	M.	Packer No. 2,		Foot bruised by fall of coal away from face.
Mar. 24	Joseph Tilkonick,	Slavonian,	Chargeman,	24	M.	Draper,		Arm and ribs fractured by falling 30 feet down shaft.
April 7	John Murry,	Irish,	Bottomman,	24	S.	Packer No. 2,		Ribs fractured by being struck by piece of coal that fell off car on slope.
28	Joseph Metracavage,	Lithuanian,	Driver,	21	S.	Gilberton,	Schuylkill,	Body bruised by falling under cars on gangway.
May 1	Peter Klitch,	American,	Foreman,	45	M.	Packer No. 4,		Face lacerated. Wrench slipped and struck him in the face. Outside.
11	Frank Burcopsky,	Polish,	Miner,	38	S.	Shenandoah City,		Burned by gas. It is supposed he struck a match to ignite a squib.
June 3	Joseph Zekiewicz,	Polish,	Conveyor tender,	18	S.	Shenandoah City,		Shoulders and head injured by being caught in conveyor line. Outside.
6	Stiney Yensavage,	Lithuanian,	Laborer,	23	S.	Packer No. 3,		Eyes blown out, left arm cut off at elbow and fingers of right hand cut off by explosion of a box of dynamite caps. A spark from his lamp ignited caps.
	Mike Kurilla,	Greek,	Miner,	38	M.	Shenandoah City,		Leg broken by being struck by timber that fell out while he was making room for relief timber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 17	John Barrett,	American,	Car runner,	22	S.	Gilberton,		Leg broken by being caught by rush of coal against brake stick while loading coal from a cleaner. Outside.
24	Tupel Perlinskie,	Slavonian,	Driver,	24	S.	Shenandoah City,		Arm crushed by being knocked off car on gangway. While riding on front of car his head struck collar and he was knocked off car.
26	George Eye,	American,	Carpenter,	26	M.	Packer No. 4,		Jaw bone broken. He was working at circular saw in repair shop and was forcing wood against saw when the wood flew up and struck him. Outside.
27	Joseph Babulonus,	Lithuanian,	Driver,	18	S.	Shenandoah City,		Leg broken by falling under car on gangway. He jumped off car while in motion.
	Joseph Lingo,	Polish,	Miner,	33	M.	Turkey Run,	Schuylkill,	Leg broken by rush of rock and coal from a loose bank away from face.
	Frank Kowolchuck,	Russian,	Miner,	52	M.	Packer No. 4,		Hip fractured by fall of coal near face.
	Stiney Stabulsky,	Lithuanian,	Laborer,	26	M.	Packer No. 2,		Leg and ribs fractured by fall of coal near face.
July 10	George Filler,	Lithuanian,	Driver,	17	S.	Shenandoah City,		Chest crushed by being caught between car and timber on gangway.
22	Enoch Wasconus,	Lithuanian,	Laborer,	24	S.	Kehley Run,		Compound fracture of arm by fall of slate away from face.
Aug. 1	John Hinderlighter,	German,	Timber cutter,	38	M.	Kehley Run,		Arm broken by falling from cribbing on timber bank. Outside.
8	Adam Malukus,	Lithuanian,	Laborer,	24	S.	William Penn,		Collar bone fractured and head lacerated by rush of water and mud from breach on surface.
11	John Wyludick,	Polish,	Miner,	27	S.	West Shenandoah,		Burned by gas. He was helping to stand a prop 14 feet long at face of breast and climbed to top of prop, with naked light on his head, to put cap piece on prop.

Aug.	22	Max Coveluskie,	Polish,	Miner,	45	S.	Shenandoah City,		Leg broken by being struck by a piece of rock that rolled down pitch.
Sept.	12	Ant. Dutalavage,	Lithuanian,	Laborer,	26	S.	Gilberton,		Leg broken by fall of slate near face.
	14	Joseph Grime,	Lithuanian,	Miner,	53	M.	Packer No. 3,		Arm broken and leg dislocated by being struck by a piece of coal that rushed down from pile of coal.
	19	John Miles,	American,	Fire boss,	36	M.	Packer No. 3,		Burned by gas. They were building a brattice to remove gas at face of a breast. The fire boss sent Kupslitus to get a piece of canvas in another breast, and Kupslitus lighted his lamp to find canvas and walked into the gas.
		Joseph Kupslitus,	Lithuanian,	Miner,	27	S.			
		Alex Zanskupsky,	Lithuanian,	Miner,	26	S.			
		Joseph Zanskupsky,	Lithuanian,	Miner,	24	S.			
	23	Peter Dipp,	Syrian,	Laborer,	20	S.	Turkey Run,		Head and body squeezed. He was dumping a buggy and in trying to remove a piece of coal at the door the stick under the hind end came out and crushed him against collar on buggy tip.
	25	Felix Chopilskie,	Lithuanian,	Laborer,	32	M.	Shenandoah City,		Leg broken by being struck by timber. He was standing a set of timber and in trying to turn one of the legs the timber fell out.
	27	John Neluslick,	Russian,	Miner,	26	S.	Kehley Run,	Schuylkill,	Head, chest, legs and arms lacerated. He was driving gangway when his laborer exploded a stick of dynamite at face of gangway, blowing Neluslick down an old breast. The laborer was killed.
Oct.	4	Dom Barrett,	Irish,	Miner,	34	M.	Packer No. 3,		Burned by gas that he ignited with open lamp. He used a naked lamp contrary to the orders of the fire boss.
Nov.	8	Andro Dobriskie,	Lithuanian,	Laborer,	35	M.	Gilberton,		Arm broken by fall of slate near face.
	11	William Dillman,	American,	Bottomman,	31	M.	Draper,		Body and arms crushed by being caught between cars on slope. The rope broke and car came back in slope.
	22	Alex Hardy,	Lithuanian,	Miner,	20	M.	Packer No. 2,		Shoulder lacerated by fall of coal near face.
Dec.	9	Roy Brocious,	American,	Civil engineer,	19	S.	Shenandoah City,		Burned by gas that he ignited with open lamp. He went through a heading and up a breast 55 feet. The fire boss told him not to do so.
	11	John Sinco,	Austrian,	Laborer,	50	M.	West Shenandoah,		Hip dislocated. While assisting to lift a car up on the tip the stick that held the car up came out and struck Sinco. Outside.
	30	Walter Brozapkie,	Polish,	Laborer,	22	S.	Kohinoor,		Leg broken by fall of slate near face.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

West Shenandoah, Kohinoor, Turkey Run, Draper, Gilberton, Boston Run, Shenandoah City and Knickerbocker.—Ventilation, drainage and condition as to safety, good.

Indian Ridge.—Ventilation and condition as to safety, good; drainage fair.

LEHIGH VALLEY COAL COMPANY

Packer Nos. 2, 3 and 4.—Ventilation and condition as to safety, good; drainage fair.

THOMAS COLLIERY COMPANY

Kehley Run.—Ventilation, drainage and condition as to safety, good.

SUSQUEHANNA COAL COMPANY

William Penn.—Ventilation and condition as to safety, good; drainage fair.

HARLEIGH-BROOKWOOD COAL COMPANY

Stanton.—Ventilation, drainage and condition as to safety, good.

M. A. GERBER AND A. S. SEAMAN

Furnace.—Ventilation, drainage and condition as to safety, fair.

CAMBRIDGE COAL COMPANY

Cambridge.—Ventilation and condition as to safety, good; drainage fair.

WILLIAM NISWENTER

Niswenter.—Ventilation good; drainage and condition as to safety, fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Kohinoor Colliery.—Two tunnels from Buck Mountain to Little Buck vein, total length, 94½ yards.

No. 26 slush bore hole 543 feet deep to Buck Mountain vein.

New hoisting plant installed for No. 2 shaft.

West Shenandoah Colliery.—Tunnel from Skidmore to Mammoth, total length, 7 1-3 yards.

Rock hole from Seven Foot to Mammoth for slushing.

No. 8 slush bore hole 150 feet deep to Buck Mountain vein.

Slush bore hole 124 feet deep to Buck Mountain vein.

Turkey Run Colliery.—Tunnel from Four Foot to Primrose vein, 98 1-3 yards long.

Tunnel from Skidmore to Mammoth, total length, 16 yards.

Incandescent lights installed in No. 8 slope engine house.

Shenandoah City Colliery.—Rock hole to Top Split, 44⅔ yards long, to work basin.

Rock hole to Top Split, 21 1-3 yards long, for ventilation.

Tunnel to Skidmore from 6th lift, total length, 13 yards.

No. 7 bore hole for electric wires to operate No. 2 Underground Buck Mountain slope, 746 feet deep, and transformer house at top engine room completed; and electric hoist installed for No. 2 Underground Buck Mountain slope.

Buck Mountain slope 3rd lift East sump extended 100 feet.

Four-inch water pipe lines laid on all levels for fire purposes.

Concrete walls and steel I beams installed in pump room at foot of shaft.

Concrete walls and floor in pump room on 3rd lift Buck slope.

Four-inch water pipe lines laid outside for fire purposes.

Indian Ridge Colliery.—Rock hole from Skidmore to Bottom split 26⅔ yards long for ventilation.

Tunnel to Buck Mountain at foot of No. 5 rock slope, 37 1-3 yards long.

Plane in Buck Mountain 200 feet long.

No. 6 slope in Holmes vein sunk 271 feet to basin and gangway turned off.

No. 7 slope in Primrose vein sunk 210 feet to 1st lift.

Plane in Top split 800 feet long nearly completed.

Engines erected on surface.

Draper Colliery.—Tunnel to Buck Mountain vein from the West Skidmore gangway, 1st lift No. 5 slope 700 feet west of tunnel at foot of No. 5 slope completed February, 1911; total distance, 62 1-3 yards.

Permanent headframe for coal hoisting shaft completed in December.

New coal hoisting shaft from surface to 2nd lift, 201 1-3 yards. The sinking of the shaft was completed November, 1911, but the guides have not been placed in the north compartment.

Single and double track tunnel from the Buck Mountain vein 2nd lift to and around the new coal hoisting shaft, through measures underlying the Buck Mountain vein started March, 1911. Probable length of tunnel, 298 yards, of which 77 yards will be double track tunnel. The shaft and tunnel were connected in October, 1911. Total distance from beginning of tunnel to east side of shaft 535 feet.

Gilberton Colliery.—Traffic tunnels to Little Buck vein east and west of proposed slope across pitch at breast No. 28 off West Buck Mountain gangway, 5th lift, completed January, 1911; distance, 29 yards.

Air tunnel to Little Buck vein from the West Buck Mountain gangway 5th lift between breasts Nos. 30 and 31, completed March, 1911; distance 10 2-3 yards.

Tunnel to Bottom Split of Mammoth vein from the East Skidmore gangway, 5th lift at a point 900 feet west of east pillar line, completed April, 1911; distance, 11 1-3 yards.

Ash haulage engine at lower boiler house, completed August, 1911.

Slope on 25 degrees across pitch from West Buck Mountain gangway, 5th lift at breast No. 28, November, 1911; distance 128 2-3 yards.

Extension of Buck Mountain tender slope from 5th to 6th lift, completed March, 1911; length of extension, 36⅔ yards; length 5th to 6th lifts, 70 yards.

Boston Run Colliery.—A tunnel to Little Buck from East Buck Mountain vein 4th lift for empty cars; length, 16 1-3 yards.

Extension of Tender slope from 3rd lift to 4th lift; length, 108 yards.

THOMAS COLLIERY COMPANY

Kehley Run Colliery.—Inside: Tunnel driven from the Skidmore to the Mammoth No. 4 slope.

Work commenced on pump houses, hospital and fire bosses' rooms for the purpose of concreting the walls and protecting the top with steel girders.

Outside: Addition made to the breaker and 4 jigs installed.

Reservoir partly completed for the storing of mine water to wash the coal.

New foremen's office erected.

SUSQUEHANNA COAL COMPANY

William Penn Colliery.—31 new mine cars, new shakers to replace revolving screens, two egg coal jigs, 88 yard tunnel in No. 2 drift, 11 yard tunnel in No. 1 level, 34 yard tunnel in No. 2 level, 31 yard tunnel in No. 3 level.

Fireproof stables on Nos. 1, 2 and 3 levels partly completed.

Turn-out and head for new Buck slope on No. 4 level.

Two new broken coal spirals in breaker.

Four old horizontal return tubular boilers were replaced with new ones.

Total amount expended for improvements during year, $20,415.33.

HARLEIGH-BROOKWOOD COAL COMPANY

Stanton Colliery.—New Buck Mountain single gunboat slope from surface to No. 3 lift 700 feet.

Airway from 3rd lift to 1st lift.

Pump room behind the Buck on the 3rd lift 45 by 55 by 16 feet high.

Tunnel on the 3rd lift south 97 feet to tap Stanton and Lawrence water.

Waterway in Little Buck 50 feet west of No. 2 Buck new slope to carry the water from main pump slope passed No. 2 slope out the water level.

New slope on Four Foot to work the Holmes; also air shaft for fan.

Returning Old Skidmore slope.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23. The Board of Examiners was composed of A. B. Lamb, Mine Inspector; E. A. Rhoads, Superintendent, William Penn; George H. Young, Miner, Shenandoah; George W. Keller, Miner, Ashland.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Alfred R. Price, William Penn, Shaft P. O.

Assistant Mine Foremen

Fenton E. Cooney, Frederick Hildlaebrand, Henry Thomas, Emrys Lewis, William T. Simmons, Joseph E. Kennard, Shenandoah, Robert Morgan, Gilberton; Thomas F. Gallagher, Lost Creek; John Keating, Jackson; Thomas Cavanaugh, Lost Creek; Daniel Drew, Shenandoah.

FOURTEENTH DISTRICT

COLUMBIA AND SCHUYLKILL COUNTIES

Centralia, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Report as Inspector of Mines for the Fourteenth Anthracite District for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

JAMES A. O'DONNELL, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	26
Number of mines in operation,	22
Number of tons of coal shipped to market,	2,136,033
Number of tons used at mines for steam and heat,	305,210
Number of tons sold to local trade and used by employes,	35,146
Number of tons produced,	2,476,389
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	3,245
Number of persons employed outside,	1,772
Number of fatal accidents inside of mines,	9
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	35
Number of non-fatal accidents outside,	16
Number of tons of coal produced per fatal accident inside,	275,154
Number of persons employed per fatal accident inside,	361
Number of persons employed per fatal accident outside,	354
Number of persons employed per non-fatal accident inside,	93
Number of persons employed per non-fatal accident outside,	111
Number of wives made widows,	7
Number of children made orphans,	11
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	31
Number of compressed air locomotives used inside,	4
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	15
Number of electric motors used outside,	.....
Number of fans in use,	19
Number of furnaces in use,	.....
Number of gaseous mines in operation,	21
Number of non-gaseous mines in operation,	1
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	897,387
Lehigh Valley Coal Company,	853,827
Midvalley Coal Company,	378,642
Girard Mammoth Coal Company,	209,830
W. R. McTurk Coal Company,	131,512
Dreshman Coal Company,	5,191
Total,	2,476,389

Production by Counties

Schuylkill,	1,410,553
Columbia,	1,065,836
Total,	2,476,389

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	2	4	6	6	8	14	448,693	149,565	1,486	819	2,305	743	205	137	186
Lehigh Valley Coal Co.,	3	----	3	21	6	27	284,609	40,658	1,067	324	1,391	356	----	51	54
Midvalley Coal Co.,	1	1	2	6	----	6	378,642	63,107	421	189	610	421	189	70	----
Girard Mammoth Coal Co.,	1	----	1	1	2	3	209,830	209,830	180	223	403	180	----	180	112
W. R. McTurk Coal Co.,	2	----	2	1	----	1	65,756	131,512	85	212	297	42	----	85	----
Miscellaneous Companies,	----	----	----	----	----	----	----	----	6	5	11	----	----	----	----
Totals and averages for district,	9	5	14	35	16	51	275,154	70,754	3,245	1,772	5,017	361	354	93	111

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1	2						1	4	44.45
Mine cars,		1											1	11.11
Explosions of gas,											1		1	11.11
Suffocation by gas, etc.,				2									2	22.22
Rush of coal,								1					1	11.11
Totals,		1		2	1	2		1			1	1	9	100.00
Causes of Accidents Outside														
Cars,										1			1	20.00
Machinery,	1		2										3	60.00
Struck by frozen culm,	1												1	20.00
Totals,	2		2							1			5	100.00
Grand totals inside and outside,	2	1	2	2	1	2		1		1	1	1	14	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1		1	1						1			4	11.43
Falls of slate,			1								1		2	5.71
Falls of roof,							1						1	2.86
Mine cars,		1	1	1	1				1			1	6	17.14
Explosions of gas,			1	1	2	3	2				1	1	11	31.42
Explosions of powder and dynamite,				1		1							2	5.71
Blasts, premature and otherwise,				1									1	2.86
Falling into slopes, etc.,				1		1					1		3	8.57
Crushed at batteries,							1						1	2.86
Machinery,												1	1	2.86
Struck by rope,						1							1	2.86
Rush of coal,							1						1	2.86
Struck by rod,											1		1	2.86
Totals,	1	1	4	6	3	6	5		1	1	4	3	35	100.00
Causes of Accidents Outside														
Cars,		1				1							2	12.50
Machinery,	4	1								1			6	37.50
By mules,							1						1	6.25
By falling,	1			1						1			3	18.75
Struck by object,		1											1	6.25
Struck by timber,		1											1	6.25
Struck by plate,			1										1	6.25
Struck by chain,											1		1	6.25
Totals,	5	4	1	1		1	1			2	1		16	100.00
Grand totals inside and outside,	6	5	5	7	3	7	6		1	3	5	3	51	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	----	1	1	1	----	----	----	----	1	----	4
Miners' laborers,	----	----	----	1	----	1	----	1	----	----	----	1	4
Timbermen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	----	1	----	2	1	2	----	1	----	----	1	1	9
Outside													
Engineers and firemen,	----	----	1	----	----	----	----	----	----	----	----	----	1
Laborers,	2	----	1	----	----	----	----	----	----	1	----	----	4
Totals,	2	----	2	----	----	----	----	----	----	1	----	----	5
Grand totals inside and outside,	2	1	2	2	1	2	----	1	----	1	1	1	14

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	3	4	2	4	3	----	----	1	2	1	20
Miners' laborers,	1	----	----	2	----	1	1	----	----	----	1	1	7
Drivers and runners,	----	1	----	----	1	----	----	----	1	----	----	----	3
Switchmen,	----	----	1	----	----	----	----	----	----	----	----	----	1
Loaders,	----	----	----	----	----	----	----	----	----	----	----	1	1
Timbermen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Starters,	----	----	----	----	----	----	1	----	----	----	----	----	1
Surveyors,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	1	1	4	6	3	6	5	----	1	1	4	3	35
Outside													
Foremen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Blacksmiths and carpenters,	1	----	----	----	----	----	----	----	----	1	----	----	2
Engineers and firemen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Miners,	1	----	----	----	----	----	----	----	----	----	----	----	1
Starters,	1	----	----	----	----	----	----	----	----	----	----	----	1
Laborers,	----	2	1	----	----	1	1	----	----	----	----	----	5
Loaders,	----	1	----	1	----	----	----	----	----	----	----	----	2
Jig-tenders,	----	1	----	----	----	----	----	----	----	----	----	----	1
Oilers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Cranemen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	5	4	1	1	----	1	1	----	----	2	1	----	16
Grand totals inside and outside,	6	5	5	7	3	7	6	----	1	3	5	3	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	1	2	1	1	----	----	----	1	----	----	6
Irish,	1	----	----	----	----	----	----	----	----	----	----	----	1
German,	1	1	----	----	----	----	----	----	----	----	----	----	2
Slavonian,	----	----	1	----	----	1	----	----	----	----	----	1	3
Lithuanian,	----	----	----	----	----	----	----	1	----	----	1	----	2
Totals,	2	1	2	2	1	2	----	1	----	1	1	1	14

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	4	2	1	----	3	3	----	1	2	2	----	19
Irish,	1	----	----	1	----	1	----	----	----	1	----	----	4
German,	2	----	----	----	----	----	----	----	----	----	----	----	2
Polish,	----	----	1	2	3	1	1	----	----	----	2	1	11
Italian,	1	----	----	----	----	----	----	----	----	----	----	----	1
Slavonian,	1	----	----	----	----	1	----	----	----	----	----	----	2
Lithuanian,	----	----	2	1	----	1	----	----	----	----	----	1	5
Austrian,	----	----	----	1	----	----	1	----	----	----	----	----	2
Russian,		1	----	1	----	----	1	----	----	----	1	1	3
Totals,	6	5	5	7	3	7	6	----	1	3	5	3	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute circulating in the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Hammond Colliery:															
Hammond Buck,	Slope,	Gaseous,	Fan,	15	5.0	4.0	90	2	Guibal,	Steam,	15	200,000	190,000	208,000	592
Hammond Mammoth,	Slope,	Gaseous,	Fan,	21	7.0	6.0	90	2							
Hammond Nos. 1, 2, 3 and 4,	Drifts,	Gaseous,													
Bast Colliery:															
Bast Mammoth,	Slope,	Gaseous,	2 Fans,	18	5.0	5.0	90	2.1	Guibal,	Steam,	12	185,000	175,000	195,000	422
Bear Ridge Colliery:															
Bear Ridge Tunnel,	Slope,	Gaseous,	Fan,	18	6.0	4.5	85	1.8	Guibal,	Steam,	8	70,000	67,000	74,000	37
Potts Colliery:															
Potts Primrose,	Slope,	Gaseous,	Fan,	21	7.0	6.0	80	1	Whiting,	Steam,	15	210,000	200,000	214,000	435
Potts Mammoth,	Slopes,	Gaseous,	2 Fans,	18	6.0	5.0	80	1.8							
Lehigh Valley Coal Co.															
Centralia Colliery:															
Continental,	Slope,	Gaseous,	2 Fans,	20	6.0	6.5	62	1.3	Guibal,	Steam,	6	65,000	63,000	68,000	155
				12	3.5	1.75	60	.3		Gasoline,					
Logan,	Slope,	Gaseous,	Fan,	12	4.0	3.0	92	.5		Steam,	4	40,000	38,000	42,000	110

Packer No. 5 Colliery:															
Packer No. 5,	Shaft,	Gaseous,	Fan,	20	6.0	5.5	73	1.3	Guibal,	Steam,	10	100,000	97,000	102,000	238
Packer No. 5,	Slope,	Gaseous,	Fan,	16	4.5	4.5	77	.9	Guibal,	Steam,	9	73,000	70,000	75,000	212
Midvalley Coal Co.															
Midvalley Colliery:															
Midvalley No. 1,	Slope,	Gaseous,	Fan,	18	5.5	5.0	75	1.1	Vulcan,	Steam,	6	130,000	120,000	135,000	202
Midvalley Nos. 2 and 4,	Drifts,	Gaseous,	Fan,	16	4.5	4.5	75	1	Vulcan,	Steam,	2	11,000	10,000	14,000	63
Midvalley No. 2,	Slope,	Gaseous,	Fan,	24	8.0	7.0	65	1.2	Vulcan,	Steam,	6	87,000	82,000	90,000	156
Girard Mammoth Coal Co.															
Girard Mammoth Colliery:															
Girard Mammoth,	Slope,	Gaseous,	Fan,	6	3	2.5	120	.7	Sturtevant,	Steam,	3	22,000	20,000	24,000	90
Girard Mammoth,	Drift,	Gaseous,	Fan,	18	6	6.0	60	1.5	Guibal,	Electricity,	2	41,000	39,000	45,000	90
W. R. McTurk Coal Co.															
Girard Bear Ridge Colliery:															
Girard Bear Ridge,	Slope,	Gaseous,	Fan,	12	4	3.0	120	1.5	Guibal,	Steam,	3	33,000	30,000	35,000	85
Dreshman Coal Co.															
Pioneer Colliery:															
Pioneer,	Slope,	Non-gas.,	Natural,												6

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.						
Hammond,	Schuylkill,	W. J. Richards, General Manager,	Pottsville,	Reese Tasker,	Pottsville,	P. and R.
Bast,	Schuylkill,					
Potts,	Columbia,					
*Bear Ridge,	Schuylkill,					
Lehigh Valley Coal Co.						
Centralia,	Columbia,	S. D. Warriner, General Manager,	Wilkes-Barre,	J. M. Humphrey,	Centralia,	Lehigh Valley
Packer No. 5,	Schuylkill,					
Locust Run,	Columbia,					
Midvalley Coal Co.						
Midvalley,	Columbia,	T. E. Snyder, General Manager,	Hazleton,	H. D. Kostenbauder,	Wilburton,	Lehigh Valley
Girard Mammoth Coal Co.						
Girard Mammoth,	Schuylkill,			William Palmer,	Ravenrun,	P. and R.
W. R. McTurk Coal Co.						
Girard Bear Ridge,	Schuylkill,	W. R. McTurk,	Philadelphia,	Jacob M. Holt,	Girardville,	P. and R.
Dreshman Coal Co.						
Pioneer,	Schuylkill,			John Dreshman,	Ashland,	
Beaver Valley Coal Co.						
*Scotch Valley,	Columbia,			John Evans,	Beaver Valley,	Pennsylvania

*Idle.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
Hammond,	Schuylkill,	280,807	37,163	7,980	325,950	258	930	3	7	3,525	85,282	69,254	51
East,	Schuylkill,	257,940	56,340	10,280	324,560	275	769	1	5	19,525	60,576	30,800	93
Potts,	Columbia,	185,031	52,363	2,693	240,087	204	610	2	2		21,835	17,644	76
*Bear Ridge,	Schuylkill,		6,790		6,790		56				1,760		6
Totals,		723,778	152,656	20,953	897,387		2,305	6	14	23,050	169,453	117,698	226
Lehigh Valley Coal Co.													
Centralia,	Columbia,	395,930	45,440	5,737	447,107	264	801		13	3,075	225,972		64
Packer No. 5,	Schuylkill,	386,948	19,772		406,720	267	555	3	14	125,025	101,129		32
Locust Run,†	Columbia,						35				3,336		5
Totals,		782,878	65,212	5,737	853,827		1,391	3	27	128,100	330,627		101
Midvalley Coal Co.													
Midvalley,	Columbia,	337,867	38,040	2,735	378,642	249	610	2	6	64,300	38,788		72
Girard Mammoth Coal Co.													
Girard Mammoth,	Schuylkill,	179,157	30,000	673	209,830	229	403	1	3	38,400	199,735		21

*Idle.
†Pumping station.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
W .R. McTurk Coal Co.													
Girard Bear Ridge,	Schuylkill,	112,353	19,077	82	131,512	238	297	2	1	----------	24,100	----------	30
Dreshman Coal Co.													
Pioneer,	Schuylkill,	----------	225	4,966	5,191	203	11	----	----	----------	1,200	----------	3
Grand totals,		2,136,033	305,210	35,146	2,476,389	--------	5,017	14	51	253,850	763,893	117,698	453

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill, Columbia,	24	876	54	6,750	7,626	7	4	------	122	14,887	10	18,368	7,391	1	5
Lehigh Valley Coal Co.,	Schuylkill, Columbia,	15	555	25	3,900	4,455	4	------	13	63	7,605	3	7,128	5,128	2	1
Midvalley Coal Co.,	Columbia,	--------	--------	16	3,000	3,000	10	------	------	15	2,240	7	7,830	7,830	--------	1
Girard Mammoth Coal Co.,	Schuylkill,	--------	--------	5	1,250	1,250	6	------	2	10	1,210	4	3,200	2,000	1	--------
W. R. McTurk Coal Co.,	Schuylkill,	--------	--------	11	1,492	1,492	4	------	------	11	1,320	2	600	300	--------	1
Dreshman Coal Co.,	Schuylkill,	--------	--------	1	100	100	------	------	------	2	80	--------	--------	--------	--------	--------
Totals,		39	1,431	112	16,492	17,923	31	4	15	223	27,342	26	37,126	22,649	4	8

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill, Columbia,	6	26	----	227	178	73	47	11	421	497	1,486	----	8	24	102	111	47	11	516	819	2,305
Lehigh Valley Coal Co.,	Schuylkill, Columbia,	6	18	----	250	326	57	16	6	------	388	1,067	----	5	36	49	15	3	5	211	324	1,391
Midvalley Coal Co.,	Columbia,	3	----	7	153	133	28	5	6	86	------	421	1	2	17	37	25	10	3	94	189	610
Girard Mammoth Coal Co.,	Schuylkill,	1	1	2	62	45	12	4	5	48	------	180	1	1	10	24	44	3	2	138	223	403
W. R. McTurk Coal Co.,	Schuylkill,	1	----	1	14	39	6	5	2	9	8	85	1	2	12	14	51	----	2	130	212	297
Dreshman Coal Co.,	Schuylkill,	1	----	----	3	------	2	------	------	------	------	6	1	1	----	1	1	----	----	1	5	11
Totals,		18	45	10	709	721	178	77	30	564	893	3,245	4	19	99	227	247	63	23	1,090	1,772	5,017

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Columbia, Schuylkill,	15	13	16	23	25	26	18	17	21	24	24	24	246
Lehigh Valley Coal Co.,	Columbia, Schuylkill,	24	19	23	22	25	25	17	17	24	24	24	22	296
Midvalley Coal Co.,	Columbia,	21	19	21	19	22	22	20	20	22	21	21	21	249
Girard Mammoth Coal Co.,	Schuylkill,	19	14	3	22	23	21	17	19	23	24	23	21	229
W. R. McTurk Coal Co.,	Schuylkill,	20	17	24	20	16	22	16	20	20	21	21	21	238
Dreshman Coal Co.,	Schuylkill,	17	17	20	19	16	18	16	11	20	16	17	16	203

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Anthony O'Donnell,	Irish,	Laborer,	57	M.	1	----	Hammond,	Schuylkill,	Killed by overhoist while being hoisted up the tender slope. The engineer left his engine and the car was pulled in on the dump. Outside.
25	Fred Shrader,	German,	Laborer,	30	S.	----	----	Potts,	Columbia,	Killed by fall of frozen culm where they were loading up a bank with steam shovel. Outside.
Feb. 2	Fred Peters,	German,	Timberman,	64	M.	1	----	Packer No. 5,	Schuylkill,	Fatally injured by being struck by motor while opening door. He was tending door for the day. Died March 19.
Mar. 16	Thomas McDonald,	American,	Laborer,	19	S.	----	----	Hammond,	Schuylkill,	Killed by his clothing being caught in breaker machinery. He was oiling the machinery while it was in motion. Outside.
18	Michael Menkoush,	Slavonian,	Fireman,	35	M.	1	4	Midvalley,	Columbia,	Fatally injured by being caught in fly-wheel of an ash line engine. He started it with his foot and his legs were caught. Died March 22. Outside.
April 4	Henry Purnell,	American,	Miner,	29	M.	1	----	Girard Bear Ridge,	Schuylkill,	Suffocated by rush of coal in chute.
	Elisha Purnell,	American,	Laborer,	18	S.	----	----			
May 26	Patrick Monaghan,	American,	Miner,	38	S.	----	----	Girard Mammoth,	Schuylkill,	Killed by fall of coal off the breast rib 180 feet from face.
June 16	Luke Cottick,	Slavonian,	Laborer,	43	M.	1	5	Packer No. 5,	Schuylkill,	Killed by fall of coal 30 feet from face while robbing pillars.
20	Peter Collis,	American,	Miner,	28	M.	1	1	Midvalley,	Columbia,	Killed by fall of coal off pillar 40 feet from face while robbing pillars.

Aug. 11	Peter Zenanonoskie,--	Lithuanian,	Labore ----	22	S.	---- ----	Bast, ----------	Schuylkill, -----	Killed by rush of coal on gangway 180 feet from face. He and the miner and another laborer were at work at the face when they heard the gangway breaking behind them. Zenanonoskie ran to get out and was caught. The others remained inside and were uninjured.
Oct. 19	Levi Yarnell, --------	American,--	Laborer,	27	M.	1 1	Potts, ----------	Columbia, -----	Killed by being caught between box car door and chute under breaker. Outside
Nov. 3	Peter Asmanskie, ----	Lithuanian,	Miner, ---	28	S.	---- ----	Hammond, -------	Schuylkill, -----	Killed by explosion of gas and falling 80 feet down the breast manway. He used a naked light, when he had been ordered to use safety lamp.
Dec. 29	Thomas Helco, ------	Slavonian,	Laborer, ---	26	S.	---- ----	Packer No. 5, ---	Schuylkill, -----	Killed by fall of coal. He went into an abandoned place to load a buggy of coal to finish the shift and while picking down top coal it fell on him.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Frank Carrall,	Irish,	Starter,	38	M.	Hammond,	Schuylkill,	Leg fractured by an overhoist on slope. Outside.
	John Bush,	Italian,	Miner,	36	M.			
16	Michael Walush,	Slavonian,	Laborer,	21	S.	Packer No. 5,	Schuylkill,	Leg fractured by fall of coal while robbing pillars.
20	Frank Oswald,	German,	Assistant foreman,	45	M.	Hammond,	Schuylkill,	Hand crushed in machinery in breaker and had to be amputated. Outside.
25	Lewis Strimk,	German,	Carpenter,	41	M.	Potts,	Columbia,	Leg fractured by machinery under breaker. Outside.
30	James Hagerty,	American,	Engineer,	32	S.	Centralia,	Columbia,	Leg fractured by jumping off locomotive on stripping bank. Outside.
Feb. 1	John Purcell,	American,	Loader,	19	S.	Centralia,	Columbia,	Eye punctured by bumping against object at breaker. Outside.
7	John Hoffman,	American,	Driver,	33	M.	Bast,	Schuylkill,	Thigh bruised by falling under cars on gangway.
23	Arthur Orth,	American,	Jig-tender,	18	S.	Certralia,	Columbia,	Ankle fractured by machinery in breaker. Outside.
25	John Garvey,	American,	Laborer,	19	S.	Bast,	Schuylkill,	Arm bruised by falling under car on timber bank. Outside.
27	Michael Lacovich,	Russian,	Laborer,	38	M.	Centralia,	Columbia,	Leg fractured by timber rolling on him in timber yard. Outside.
March 1	Sylvester Kolkoskie,	Lithuanian,	Miner,	37	M.	Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
3	Owen King,	American,	Switchman,	26	S.	Hammond,	Schuylkill,	Collar bone fractured while coupling cars in motion on gangway.
7	Thomas Moran,	American,	Laborer,	55	M.	Hammond,	Schuylkill,	Leg fractured by iron plate falling on him in timber yard. Outside.
13	Adam Gromoffskie,	Lithuanian,	Miner,	42	M.	Packer No 5,	Schuylkill,	Shoulder blade fractured by fall of coal while robbing pillars.
14	Steve Demetro,	Polish,	Miner,	48	M.	Centralia,	Columbia,	Leg fractured by fall of slate at face of breast.

April	3	Elex Rowe,	Polish,	Miner,	39	M.	Midvalley,	Columbia,	Face and body lacerated by premature blast at face of breast.
	4	Michael Wynn,	Irish,	Repairman,	52	M.	Bast,	Schuylkill,	Foot fractured by falling down airway while timbering.
	5	Andrew Suffron,	Polish,	Loader,	58	M.	Centralia,	Columbia,	Shoulder dislocated by falling off car at breaker. Outside.
	21	John Tretter,	Austrian,	Laborer,	20	S.	Centralia,	Columbia,	Leg bruised by being bumped between cars on gangway.
	24	Joseph Sexton,	American,	Miner,	45	S.	Packer No 5,	Schuylkill,	Hands blown off and eyes destroyed by explosion of box of caps on gangway.
	25	Frank Sholius,	Russian,	Miner,	28	S.	Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
	29	Joe Dubillis,	Lithuanian,	Miner,	25	S.	Packer No. 5,	Schuylkill,	Leg fractured by fall of coal at face of breast.
May	8	Michael Vasalavage,	Polish,	Miner,	25	M.	Midvalley,	Columbia,	Face and hands burned by explosion of gas at face of breast.
	19	John Smith,	Polish,	Driver,	38	S.	Midvalley,	Columbia,	Shoulder blade fractured by being caught between car and timber on gangway.
	27	Joseph Morgans,	Polish,	Miner,	33	M.	Midvalley,	Columbia,	Hands and face burned by explosion of gas at face of breast.
June	12	Humphrey Cosack,	Slavonian,	Miner,	27	M.	Packer No. 5,	Schuylkill,	Hands and face burned while handling powder with naked lamp on head.
	15	Joseph Parsick,	Polish,	Laborer,	29	M.	Centralia,	Columbia,	Body crushed by being caught by cars on rock bank. Outside.
	16	Patrick Curran,	Irish,	Laborer,	65	M.	Centralia,	Columbia,	Leg fractured by being struck by rope on slope.
	21	William Woodman,	American,	Timberman,	37	M.	Bast,	Schuylkill,	Concussion of brain by falling down airway while timbering.
	26	Frank Miller,	American,	Miner,	52	M.	Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas in chute while robbing pillars.
	27	John Grant,	American,	Miner,	37	M.	Hammond,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
		August Lokitas,	Lithuanian,	Miner,	24	M.			
July	7	Stiney Swatskie,	Polish,	Starter,	26	M.	Midvalley,	Columbia,	Arm fractured by being caught in battery in breast.
	18	Andy Hoffshanne,	Russian,	Miner,	32	M.	Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
		Joe Krick,	American,	Laborer,	27	S.			
	21	William Miller,	American,	Laborer,	47	S.	Bast,	Schuylkill,	Ribs fractured by being kicked by mule at timber yard. Outside.
	27	John Beiber,	Austrian,	Miner,	25	M.	Centralia,	Columbia,	Compound fracture of leg by fall of rock at face while robbing pillars.
	29	John Tyson,	American,	Miner,	29	M.	Centralia,	Columbia,	Leg fractured by rush of coal in breast manway.
Sept.	6	William Davis,	American,	Driver,	22	S.	Girard Bear Ridge,	Schuylkill,	Foot fractured by cars.
Oct.	2	Patrick Noon,	Irish,	Miner,	51	M.	Packer No. 5,	Schuylkill,	Leg fractured by fall of coal at face of breast.
	3	John Maloney,	American,	Oiler,	23	S.	Girard Mammoth,	Schuylkill,	Arm fractured by falling in breaker. Outside.
	28	John Tiley,	American,	Blacksmith,	33	M.	Potts,	Columbia,	Leg fractured by machinery in shop. Outside.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 6	Frank Rodusky,	Polish,	Miner,	40	M.	Girard Mammoth,	Schuylkill,	Collar bone fractured by fall of slate while robbing pillars.
	Merrit Zimmerman,	American,	Surveyor,	20	S.	Packer No. 5,	Schuylkill,	Body punctured by jumping on iron rod on gangway.
9	Mike Burda,	Russian,	Miner,	34	M.	Packer No. 5,	Schuylkill,	Hands burned by explosion of gas in heading that he was driving.
13	John McGrath,	American,	Craneman,	18	S.	Girard Mammoth,	Schuylkill,	Leg fractured by being struck by broken chain on steam shovel on stripping. Outside.
22	Michael Garlock,	Polish,	Laborer,	44	M.	Centralia,	Columbia,	Arm fractured by falling down breast manway.
Dec. 5	Frank Petroski,	Russian,	Laborer,	30	M.	Midvalley,	Columbia,	Collar bone fractured by being caught between car and platform on gangway.
7	John Encerlouskie,	Lithuanian,	Miner,	26	M.	Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
27	Anthony Kudock,	Polish,	Loader,	19	S.	Centralia,	Columbia,	Finger cut off while cranking gasoline motor on gangway.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Hammond, Bast, Potts and Bear Ridge.—Safety conditions, ventilation and drainage good.

LEHIGH VALLEY COAL COMPANY

Centralia, Packer No. 5 and Locust Run.—Safety conditions, ventilation and drainage, good.

MIDVALLEY COAL COMPANY

Midvalley.—Safety conditions, ventilation and drainage, good..

GIRARD MAMMOTH COAL COMPANY

Girard Mammoth.—Safety conditions, ventilation and drainage, good.

W. R. McTURK COAL COMPANY

Girard Bear Ridge. —Safety conditions and ventilation good; drainage fair.

DRESHMAN COAL COMPANY

Pioneer.—Safety conditions and ventilation good; drainage fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Potts Colliery.—Water was turned into the mine on April 29, 1910, with a view of extinguishing all fires, that is, to the highest point they could reach with water. On November 18, 1910, the water reached the highest point possible. While the flooding of the mine was being done five fire slopes were sunk on the Mammoth vein, on the hill east of the breaker, to get at any fire that might be above the level reached by the water. Cross-headings were driven between these slopes to explore the territory. Work at these slopes and headings was completed in February, 1911, and all of these openings were afterwards filled with slush, which was pumped from the slush bank at breaker.

The water in the mine remained at a standstill until February 28, 1911, when the drawing off of the water from behind the brick dams commenced. August 9, 1911, the colliery was entirely free of water.

A new breaker equipped with the most modern machinery and appliances was built on the site of the old breaker.

The old Primrose hoisting engines were moved to a new location 195 feet north of old engine house. The Primrose slope trestle was extended to a new landing in order to dump the coal from this slope into the gunboat dump.

A concrete fan shaft was built at the 18-foot exhaust fan on Mammoth vein, west of Mammoth slope headframe..

Sixteen sets of steel timber, 4-foot centers, were placed from the surface down 60 feet on Mammoth slope.

A new concrete wash water sump at wash pump house was built.

The house over Mammoth gunboat dump was remodeled and new machinery installed

Steel timber was placed for about 45 feet up the headframe at top of Mammoth hoisting slope and concrete walls and walks laid at top of slope.

A 27 by 46 by 12 by 48-inch P. and R. compound condensing pump was installed in a pump room with concrete floor in the top rock of the Primrose vein 3rd lift 30 feet west of Primrose slope. This pump discharges the water to the surface, a vertical lift of 870 feet.

A tunnel from the east Orchard gangway on 2nd lift Backswitch level to the Primrose slope is being driven; probable distance, 32 yards.

Bast Colliery.—A tunnel through fault from the face of No. 4 Buck Mountain drift North Ashland dip was completed; distance, 71 1-3 yards; also a tunnel to the Buck Mountain vein from the East Mammoth gangway 3rd lift Bast dip, distance, 109⅔ yards.

In the pump-room in the top rock of Buck Mountain vein on the 2nd lift the round timber that supported the roof and sides has been replaced by 12-inch steel girders, which rest upon a concrete wall 3 feet thick, extending to within 16 inches of the top of pump-room. Old T rail was placed on top of the steel girders. In the gangway at north end of pump-room the timber supports have been replaced by steel girders. In the pump-room in Buck Mountain vein, 2nd lift, 18 sets of steel timber have been erected in place of wood timber; concrete walls 4 feet 6 inches high have been built along both sides of the pump-room, and on top of these walls steel props with 4 foot 8 inch centers, have been placed which have a 12-inch steel girder for collar. The sides and top of room are lined with old T rail and room has concrete floor.

A single track Barney plane to lower the coal from No. 5 Buck drift, was completed; plane is 590 feet long, 10 feet wide, on an average pitch of 18½ degrees.

Hammond Colliery.—A coal hoisting shaft has been completed at a depth of 1,211 feet. The shaft has four compartments each 7 feet by 12 feet 8 inches in the clear.

A traffic and turnout tunnel between the West Orchard and the West Diamond veins on the 3rd lift; distance, 222 feet, was completed.

An underground slope in the Buck Mountain vein was sunk a distance of 343 feet, and the East and West gangways, 4th lift, are driven 500 feet on each side of slope.

The underground slope in the Mammoth vein on line of Mammoth slope from 3rd lift, was completed; distance, 330 feet, and East and West gangways, 4th lift, are driven 500 feet each side of slope.

A tunnel to the Mammoth vein from the Buck Mountain vein, 4th lift, about 200 feet east of the bottom of underground slope in Buck was completed; distance, 228 feet. This tunnel connects the East Buck Mountain, 4th lift and East Mammoth, 4th lift gangways and is on a line of proposed tunnel northward to the coal shaft and southward to the Diamond vein.

A tunnel from the West Mammoth to the Holmes vein was completed; distance, 127 feet.

A tunnel to the Mammoth vein from the West Seven Foot water level was completed; distance, 123 feet.

The stable in the Seven Foot vein, 3rd lift, was completed. It has a concrete floor, the roof and sides are supported with T rails, the mangers and feed bins are made of gas pipe and sheet iron, and the feed box for storing supplies is made of concrete.

LEHIGH VALLEY COAL COMPANY

Centralia Colliery.—Two 300 H. P. Stirling boilers were erected. The boiler house building and feed pump house are built of reinforced concrete, and the boiler house is equipped with Coxe traveling grates and automatic feed regulators. The Central power plant was started November, 1910, and was completed during this year. This power plant contains a 500 K. V. A. generator driven by a Cross-Compound Corliss engine, size 22 by 36 by 36 inches and is completely equipped with steam driven exciter as well as electrically driven exciter set and is in every particular equipped with the most modern appliances. The house is completely fireproof, being built of re-inforced concrete steel trusses; the roof is also of reinforced concrete. They have ordered a motor generator set to replace the D. C. steam driven generator. This plant supplies power for Locust Run, and they contemplate doing all of the haulage at the collieries tributary to Centralia breaker as well as pumping, and in addition the pumping at the water station.

Locust Run Colliery.—Operations were started toward the end of the year and during the past year the slope in the Buck Mountain vein from the old water level to the locomotive road from Locust Run to Centralia was completed 500 feet deep, and the locomotive road from Centralia to Locust Run finished and an electric hoist placed on this slope.

The timber at the mouth of the Holmes slope and at the mouth of the Logan slope and the Continental manway were replaced by concrete.

A plane and engine house erected at Big Mine Run for transporting the coal from the stripping.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen, was held in Union Hall, Pottsville, March 22 and 23. The Board of examiners was composed of James A. O'Donnell, Mine Inspector; Jacob M. Holt, Superintendent, Girardville; John Meredith, Miner, Ashland; Patrick Curran, Miner, Centralia.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John J. Conway, Centralia.

Assistant Mine Foremen

Frank Pollard, John J. Doyle, Patrick F. Kane, John Panko, Jr., Alfred Liddicott, Peter J. Conway, James J. Haffey, Centralia; John A. Quinn, Connerton; Albert D. Wolfgang, Lavelle; Edward J. Lowery, John J. Colahan, Ashland.

FIFTEENTH DISTRICT

NORTHUMBERLAND COUNTY

Mount Carmel, Pa., February 10, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Fifteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
BENJAMIN I. EVANS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	30
Number of mines in operation,	30
Number of tons of coal shipped to market,	3,046,996
Number of tons used at mines for steam and heat,	347,520
Number of tons sold to local trade and used by employes,	44,798
Number of tons produced,	3,439,314
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	5,777
Number of persons employed outside,	2,265
Number of fatal accidents inside of mines,	15
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,	14
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	229,288
Number of persons employed per fatal accident inside,	385
Number of persons employed per fatal accident outside,	377
Number of persons employed per non-fatal accident inside,	412
Number of persons employed per non-fatal accident outside,	1,132
Number of wives made widows,	9
Number of children made orphans,	15
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	21
Number of compressed air locomotives used inside,	3
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	18
Number of electric motors used outside,	.....
Number of fans in use,	30
Number of furnaces in use,	.....
Number of gaseous mines in operation,	12
Number of non-gaseous mines in operation,	18
Number of new mines opened,	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,373,235
Mineral Railroad and Mining Company,	892,557
Lehigh Valley Coal Company,	381,845
Greenough Red Ash Coal Company,	266,144
Enterprise Coal Company,	242,676
Colonial Collieries Company,	172,842
Excelsior Coal Company,	110,015
Total,	3,439,314

Production by Counties

Northumberland,	3,439,314

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	3	2	5	7	-------	7	457,745	196,176	2,145	789	2,934	715	394	306	-------
Mineral Railroad and Mining Co.,	5	-------	5	4	2	6	178,512	248,139	1,829	669	2,498	366	-------	457	334
Lehigh Valley Coal Co.,	3	-------	3	-------	-------	-------	127,282	-------	514	182	696	171	-------	-------	-------
Greenough Red Ash Coal Co.,	1	1	2	2	-------	2	266,144	133,072	395	175	570	395	175	197	-------
Enterprise Coal Co.,	2	1	3	-------	-------	-------	121,388	-------	426	205	631	315	205	-------	-------
Colonial Collieries Co.,	-------	2	2	1	-------	1	-------	172,842	311	167	478	-------	83	311	-------
Excelsior Coal Co.,	1	-------	1	-------	-------	-------	110,015	-------	157	78	235	157	-------	-------	-------
Totals and averages for district,	15	6	21	14	2	16	229,288	245,665	5,777	2,265	8,042	385	377	412	1,132

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1		1						2	13.33
Falls of slate,			1	1				1					3	20.00
Falls of roof,										1			1	6.67
Mine cars,			1	1			2		1			1	6	40.00
Blasts, premature and otherwise,	1												1	6.67
Drowned in sump,			1							1			2	13.33
Totals,	1		3	2	1		3	1	1	2		1	15	100.00
Causes of Accidents Outside														
Cars,	1										1	1	3	50.00
Machinery,										1		1	2	33.34
By falling,								1					1	16.66
Totals,	1							1		1	1	2	6	100.00
Grand totals inside and outside,	2		3	2	1		3	2	1	3	1	3	21	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1		1		1				3	21.43
Falls of slate,		1									1		2	14.29
Mine cars,		1		1			1			2	1		5	35.71
Explosions of powder and dynamite,										1			1	7.14
Blasts, premature and otherwise,	1			1									2	14.29
										1			1	7.14
Totals,	1	2		2	1		2		1	3	2		14	100.00
Causes of Accidents Outside														
Cars,			1									1	2	100.00
Totals,			1									1	2	100.00
Grand totals inside and outside,	1	2	1	2	1		2		1	3	2	1	16	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1		1	1	1		2	1		1			8
Miners' laborers,			1				1						2
Dump-men,												1	1
Loader-bosses,									1				1
Loaders,				1									1
Repairmen,										1			1
Bottommen,			1										1
Totals,	1		2	2	1		3	1	1	2		1	15
Outside													
Chute-bosses,								1		1			2
Conductors,	1												1
Loaders,												1	1
Car-runners,											1		1
Oilers,												1	1
Totals,	1							1		1	1	2	6
Grand totals inside and outside,	2		3	2	1		3	2	1	3	1	3	21

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1		1	1		1		1	2			8
Miners' laborers,							1				2		3
Drivers and runners,				1						1			2
Doorboys and helpers,		1											1
Totals,	1	2		2	1		2		1	3	2		14
Outside													
Drivers,												1	1
Oilers,			1										1
Totals,			1									1	2
Grand totals inside and outside,	1	2	1	2	1		2		1	3	2	1	16

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1						2		1	2	1	2	9
Irish,								1					1
Polish,			1		1		1	1					4
Lithuanian,	1		1	1									3
Austrian,												1	1
Russian,			1	1						1			3
Totals,	2		3	2	1		3	2	1	3	1	3	21

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		1	1							1		1	4
English,											1		1
German,							1						1
Polish,	1	1		1	1				1	1	1		7
Slavonian,										1			1
Austrian,				1									1
Tyrolean,							1						1
Totals,	1	2	1	2	1		2		1	3	2	1	16

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Locust Spring Colliery:															
Locust Spring, East,	Slope,	Gaseous,	Fan,	21	5.6	5.6	72	1.6	Reading,		10	41,450	40,650	42,000	
Locust Spring,	Shaft,	Gaseous,	Fan,	15	3	4.6	74	1.2	Guibal,		8	59,700	58,560	60,800	561
Locust Spring, West,	Slope,	Gaseous,	Fan,	15	4	3.6	84	.6	Guibal,	Steam,	8	31,600	31,000	32,000	
Locust Gap, East,	Slope,	Gaseous,	Fan,	21	5	4.6	73	1.2	Guibal,		9	78,000	77,000	79,000	
Locust Gap, West,	Slope,	Non-gas.,	Fan,	15	4	3.6	86	.4	Guibal,		6	32,600	32,000	33,700	496
Locust Gap, Buck Mountain,	Slope,	Non-gas.,	Fan,	12	4	3.6	75	.5	Reading,		2	11,000	9,790	11,370	
Alaska Colliery:															
Alaska No. 1,	Shafts,	Non-gas.,	Fan,	18	4.8	5	85	1.4	Guibal,	Steam,	6	68,700	67,540	69,000	690
Alaska No. 2,			Fan,	18	7	6.5	90	1.5			6	61,000	60,000	62,380	
Reliance Colliery:															
Reliance No. 1,	Slopes,	Non-gas.,	Fan,	18	5.6	5.6	74	1.3	Guibal,	Steam,	7	51,000	50,100	52,000	398
Reliance No. 2,			Fan,	18	5.6	5.6	72	1.4			7	56,000	55,000	56,600	
Mineral Railroad and Mining Co.															
Pennsylvania Colliery:															
Pennsylvania No. 1,	Slopes,	Gaseous,	Fan,	21	3.5	3.5	75	1.5	Guibal,	Steam,	4	81,500	78,450	84,700	
Pennsylvania No. 4,			Fan,	16	5	5	80	1.3	Vulcan,		2	64,300	59,000	64,450	707
Pennsylvania No. 5,*			Fan,	16	3.5	3.5	85	1.2	Mullen,		8	67,650	65,350	68,790	

*Abandoned.

Richards Colliery:															
Richards No. 1,	Slopes,	Gaseous,	Fan,	18	7.2	5.2	90	1.6	Guibal,	Steam,	6	70,000	68,000	71,000	652
Richards No. 3,		Gaseous,	Fan,	19	6.8	6.4	94	1.8			5	75,000	73,000	76,000	
Richards No. 4,		Non-gas.,	Fan,	16	4.5	4.5	60	1			5	67,720	65,180	68,010	
Scott Colliery:															
Scott,	Shaft,	Gaseous,	Fan,	18	7	5.6	100	2	Guibal,	Steam,	11	182,000	171,000	184,500	476
Lehigh Valley Coal Co.															
Sayre Colliery:															
Sayre,	Shaft,	Gaseous,	Fan,	20	6	5.6	70	1.4	Guibal,	Steam,	8	74,000	73,500	75,650	514
Sioux No. 3,*	Slope,	Gaseous,	Fan,	16	5	5	85	2.1			9	58,600	57,000	59,480	
Greenough Red Ash Coal Co.															
Greenough Colliery:															
Greenough No. 1,	Shaft,	Non-gas.,	Fan,	15	5	4	120	2.4	Mullen,	Steam,	3	77,000	75,000	78,000	395
Greenough No. 2,	Slope,		Fan,	12	4	4	80	1			2	22,200	20,200	22,400	
Greenough No. 3,	Solpe,		Fan,	12	4	4	52	.7			1	15,400	15,000	15,700	
Enterprise Coal Co.															
Enterprise Colliery:															
Enterprise No. 10,	Shaft,	Non-gas.,	Fan,	14	3.5	5	126	2.3	Guibal,	Steam,	5	30,500	29,700	31,000	426
Enterprise No. 10,	Slope,		Fan,	14	3.5	5	80	1.2			5	25,800	25,000	27,200	
Enterprise, Buck Mountain,	Slope,		Fan,	14	4.5	5	75	.7			6	42,400	41,000	43,200	
Colonial Collieries Co.															
Natalie Colliery:															
Natalie No. 1,	Slopes,	Non-gas.,	Fan,	16	4	4.6	45	.9	Mullen,	Steam,	2	21,000	20,000	21,200	311
Natalie No. 2,			Fan,	16	4	4.5	60	.9			4	42,000	41,000	42,300	
Natalie No. 3,			Fan,	14	4	3.11	60	1.3			1	50,000	48,000	50,500	
Natalie No. 4,			Fan,	14	4	3.10	60	1			2	51,000	48,000	51,500	
Excelsior Coal Co.															
Excelsior Colliery:															
Excelsior,	Drift,	Non-gas.,	Fan,	14	3.8	5	60	2	Beadle,	Steam,	2	37,250	36,500	38,180	157

*Abandoned.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co. Locust Spring, Locust Gap, Alaska, Reliance,	Northumberland,	W. J. Richards,	Pottsville,	Reese Tasker,	Pottsville,	P. and R.
Mineral Railroad and Mining Co. Pennsylvania, Richards, Scott,	Northumberland,	R. A. Quin,	Wilkes-Barre,	W. R. Reinhardt,	Shamokin,	Pennsylvania
Lehigh Valley Coal Co. Sayre,	Northumberland,	F. M. Chase,	Wilkes-Barre,	J. M. Humphrey,	Centralia,	Lehigh Valley
Greenough Red Ash Coal Co. Greenough,	Northumberland,	Edward Brennan,	Shamokin,			Pennsylvania
Enterprise Coal Co. Enterprise,	Northumberland,	W. L. Connell,	Scranton,			P. and R.
Colonial Collieries Co. Natalie,	Northumberland,	F. A. Hill,	Pottsville,	R. H. Buchanan,	Pottsville,	P. and R.
Excelsior Coal Co. Excelsior	Northumberland,	Andrew Robertson,	Pottsville,	A. D. Robertson,	Shamokin,	P. and R.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
Locust Spring,	Northumberland,	612,673	67,095	2,981	682,747	260	953	2	2	47,075	139,043	42,111	106
Locust Gap,		57,718	9,375	.....	67,093	.....	496	----	2	16,550	150,776	.....	.....
Alaska,		320,225	31,894	80	352,197	261	905	2	1	196,350	151,436	.....	75
Reliance,		213,564	33,724	23,910	271,198	270	580	1	2	20,300	146,135	.....	54
Totals,		1,204,178	142,086	26,971	1,373,235	.....	2,934	5	7	280,275	587,390	42,111	235
Mineral Railroad and Mining Co.													
Pennsylvania,	Northumberland,	311,677	26,460	9,030	347,167	219	939	1	1	137,375	99,351	.....	113
Richards,		282,297	28,762	84	311,143	214	967	3	4	38,325	230,654	.....	79
Scott,		213,714	19,180	1,353	234,247	195	592	1	1	66,750	111,728	.....	49
Totals,		807,688	74,402	10,467	892,557	.....	2,498	5	6	242,450	441,733	.....	241
Lehigh Valley Coal Co.													
Sayre,	Northumberland,	334,623	45,536	1,686	381,845	259	696	3	----	42,050	163,227	.....	35
Greenough Red Ash Coal Co.													
Greenough,	Northumberland,	244,205	18,250	3,689	266,144	268	570	2	2	131,250	42,350	.....	63
Enterprise Coal Co.													
Enterprise,	Northumberland,	205,860	36,500	316	242,676	216	631	3	----	230,300	11,496	.....	55

TABLE 2--Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Colonial Collieries Co.													
Natalie,	Northumberland,	151,733	19,786	1,323	172,842	258	478	2	1	14,000	67,500	----------	37
Excelsior Coal Co.													
Excelsior,	Northumberland,	98,709	10,960	346	110,015	224	235	1	----	35,000	9,175	----------	34
Grand totals,	----------	3,046,996	347,520	44,798	3,439,314	--------	8,042	21	16	975,325	1,322,871	42,111	700

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	------	------	54	7,450	7,450	6	3	------	130	18,015	14	23,092	6,808	1	8
Mineral Railroad and Mining Co.,		------	------	44	5,950	5,950	5	------	3	57	7,125	12	5,790	3,162	2	3
Lehigh Valley Coal Co.,		------	------	13	2,900	2,900	4	------	6	45	2,837	7	7,810	6,800	1	------
Greenough Red Ash Coal Co.,		------	------	8	1,300	1,300	------	------	4	14	830	2	2,100	2,100	2	------
Enterprise Coal Co.,		------	------	10	2,500	2,500	------	------	5	12	1,328	4	6,548	6,548	2	2
Colonial Collieries Co.,		------	------	11	1,700	1,700	4	------	------	18	2,240	3	1,400	1,400	1	------
Excelsior Coal Co.,		12	360	2	150	510	2	------	------	7	241	1	600	350	------	------
Totals,		12	360	142	21,950	22,310	21	3	18	283	32,616	43	50,340	27,168	9	13

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside												Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	5	32	----	958	231	145	28	19	275	452	2,145	------	7	34	117	117	27	16	471	789	2,934
Mineral Railroad and Mining Co.,		4	6	32	857	321	123	17	33	40	396	1,829	1	3	49	94	221	10	24	267	669	2,498
Lehigh Valley Coal Co.,		1	8	----	228	87	19	6	11	------	154	514	1	4	13	32	9	3	3	117	182	696
Greenough Red Ash Coal Co.,		1	5	----	175	65	55	4	5	35	50	395	1	1	7	16	95	----	3	52	175	570
Enterprise Coal Co.,		2	1	----	237	43	53	6	7	54	23	426	1	1	10	38	38	30	3	84	205	631
Colonial Collieries Co.,		1	4	1	104	48	28	2	7	47	69	311	------	1	10	27	23	6	2	98	167	478
Excelsior Coal Co.,		1	1	----	42	74	23	1	2	8	5	157	1	1	6	14	8	11	2	35	78	235
Totals,		15	57	33	2,601	869	446	64	84	459	1,149	5,777	5	18	129	358	511	87	53	1,124	2,265	8,042

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	23	19	24	21	25	26	18	17	21	24	23	23	264
Mineral Railroad and Mining Co.,		20	15	18	20	20	18	13	13	12	18	22	20	209
Lehigh Valley Coal Co.,		21	21	21	23	22	22	21	22	22	21	21	22	259
Greenough Red Ash Coal Co,.		23	23	24	22	24	23	21	21	21	23	21	22	268
Enterprise Coal Co.,		21	18	20	21	21	16	11	11	18	19	20	20	216
Colonial Collieries Co.,		24	19	15	17	25	25	23	20	22	23	22	23	258
Excelsior Coal Co.,		18	18	20	19	19	19	16	16	21	19	19	20	224

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 2	Tek Bubness,	Lithuanian,	Miner,	36	M.	1	4	Scott,	Northumberland,	Killed by blast at face of breast. While lighting a squib with his naked light the flame caught the powder in the squib and the shot went off.
20	Leroy Jones,	American,	Loco. Cond.,	19	S.			Natalie,		Killed by falling under cars while trying to couple them while in motion. Outside.
Mar. 20	Sylvester Keretski,	Polish,	Laborer,	22	S.			Enterprise,		Killed by fall of slate at face of breast. They had fired a hole and discharged a prop, and while examining the roof a piece of slate fell on him.
23	Andrew Duejack,	Russian,	Miner,	40	M.	1	5	Enterprise,		Drowned in shaft sump. He went under the safety bar to cross the shaft, instead of using traveling way, and fell into the sump just as the cage was descending to the bottom, and the cage held him there.
29	William Urbanavitch,	Lithuanian,	Bottomman,	20	S.			Alaska,		Killed by being caught by car against rib on slope. While standing at the second lift waiting for an empty trip to come down, the front car of the trip became uncoupled and ran away and caught him.
April 3	Mike Yedenock,	Russian,	Loader,	28	S.			Richards No. 4,		Instantly killed by being bumped between cars. While pushing a car to the dump on top of a counter chute, another car ran down behind him from the turnout and bumped him.
10	Martin Shilinski,	Lithuanian,	Miner,	33	S.			Reliance,		Killed by fall of slate at face of breast. After firing a shot he returned to the face to make an examination, when a piece of slate fell on him.

May	3	Kasta Molefski,	Polish,	Miner,	31	M.	1	2	Richards,		Instantly killed by fall of coal while skipping a pillar.
July	1	Harry Becker,	American,	Laborer,	25	M.	1		Sayre,		Killed by being caught between door and car in tunnel. He was riding on front of empty trip pushed by a motor and failed to get off the trip in time and was caught as he was opening the door.
	28	Peter Tomsheffski,	Polish,	Miner,	38	M.	1	2	Sayre,		Killed by cars on gangway. While riding between loaded cars he was caught on short side of curve and squeezed to death.
	29	Thomas Branley,	American,	Miner,	25	S.			Greenough,		Killed by fall of coal at face of breast. He had fired a shot and returned to face and while barring out bottom coal a piece of top coal fell on him.
Aug.	8	Anthony Marcavitch,	Polish,	Miner,	29	M.	1		Pennsylvania,		Killed by fall of slate at face of breast while picking coal off the rib.
	26	Patrick Shannon,	Irish,	Chute boss,	27	S.			Locust Spring,	Northumberland,	Killed by falling a distance of 25 feet while fixing the elevators in the breaker the floor gave way and he was thrown to the ground. Outside.
Sept.	1	William Penman,	American,	Loader boss,	32	M.	1	2	Alaska,		Killed by being run over by loaded cars. He was unhitching chain on top of slope and slipped and fell under car.
Oct.	2	Albert Martz,	American,	Repairman,	46	M.	1		Excelsior,		Drowned in sump. He was taking a gasoline engine apart. He poured the gasoline that was in the tank into the sump, when a spark from his lamp fell into the water exploding the gasoline. He was overcome by the fumes and fell into the sump.
	8	Rufus Weikel,	American,	Chute boss,	16	S.			Enterprise,		Killed by falling into gear wheels. While playing around the breaker he got inside the fence and fell into the gear wheels. Outside.
	20	Peter Monovitch,	Russian,	Miner,	35	M.	1		Sayre,		Killed by fall of roof at face of heading. After firing a shot he returned to the face and began to work and loosened a piece of roof.
Nov.	13	Victor Hatter,	American,	Car-runner,	20	S.			Greenough,		Killed by being run over by cars. While running a trip of cars from the slope to the breaker, the cars jumped the track on a curve and he was thrown under. Outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 2	John Carp,	Austrian,	Dumpman,	21	S.			Richards,	Northumberland.	Killed by cars. While dumping a car, a lump of coal caught in the door. He went to the front of the car to loosen the lump and reached over the door bar. When he loosened the coal the car tipped back and caught him between top of car and top rock.
2	Daniel Adams,	American,	Car loader,	19	S.			Natalie,		Killed by being run over by railroad cars. He was running cars out from under the breaker and slipped and fell. Outside.
7	Earl Hummel,	American,	Oiler,	17	S.			Locust Spring,		Killed by machinery. While inside the safety fence oiling the scraper line his clothing was caught in the machinery and he was dragged. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 27	Bart Sweba,	Polish,	Miner,	39	M.	Greenough,	Northumberland	Leg broken by premature blast.
Feb. 21	Adam Tolan,	American,	Doorboy,	17	S.	Richards,		Leg broken by car running over him on gangway. In jumping off car he slipped and fell.
27	Peter Papko,	Polish,	Miner,	33	M.	Richards No. 4,		Hips severely injured by fall of slate at face of breast.
Mar. 1	Wilhiam Else,	American,	Oiler,	14	S.	Scott,		Left arm broken by being caught between car and door under the breaker. Outside.
April 18	Mat Brantz,	Austrian,	Miner,	45	M.	Locust Spring,		Face and body injured by explosion of blast. While drawing a missed hole it exploded.
26	Steve Thurick,	Polish,	Driver,	16	S.	Reliance,		Ribs broken by being caught between chute and car on gangway.
May 18	Andrew Baloon,	Polish,	Miner,	45	M.	Pennsylvania,		Collar bone broken by fall of coal at face of breast.
July 11	Abroma Romania,	Tyrolean,	Miner,	40	M.	Alaska,		Leg broken by fall of coal at face of breast.
18	William Headhammer,	German,	Laborer,	34	M.	Locust Spring,		Leg broken by being caught between car and rib on gangway.
Sept. 14	Joe Reynock,	Polish,	Miner,	24	M.	Richards No. 4,		Leg broken by fall of coal at face of breast.
Oct. 11	John Stranbo,	Slavonian,	Miner,	27	M.	Greenough,		Leg broken by being struck by a rail.
16	Victor Dlick,	Polish,	Miner,	26	M.	Reliance,		Severely injured by explosion of dualin cap, which was carelessly handled.
18	John Deane,	American,	Driver,	19	S.	Locust Gap,		Severely injured by being kicked off front of car by a mule.
Nov. 7	Mike Schultz,	Polish,	Laborer,	19	S.	Natalie,		Legs broken by fall of slate at face of gangway.
22	Thomas Owen,	English,	Laborer,	31	M.	Locust Gap,		Leg broken by being caught between car and prop on gangway.
Dec 11	William Schlegel,	American,	Driver,	18	S.	Richards,		Leg broken by being run over by dumper. Outside.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Locust Spring.—Locust Spring Shaft: Ventilation, drainage, roadbeds and general condition as to safety, good.

Locust Spring No. 1 Slope and Locust Spring, West Slope.—Ventilation, drainage and roadbeds, good.

Locust Gap, East.—Ventilation, drainage and condition as to safety, good.

Locust Gap, West.—Ventilation and drainage good; roadbeds in fair condition.

Locust Gap.—Buck Mountain Slope: Ventilation, drainage and roadbeds in good condition.

Alaska.—Ventilation fairly good; drainage, general condition as to safety and roadbeds, good.

Reliance.—Ventilation fair; roadbeds and general condition as to safety, good.

MINERAL RAILROAD AND MINING COMPANY

Pennsylvania.—Pennsylvania No. 1 Slope: Ventilation, drainage, roadbeds and condition as to safety, good.

Pennsylvania No. 5 Slope.—Ventilation fair; drainage and roadbeds in fairly good condition.

Richards.—Richards No. 1: Ventilation and drainage good; roadbeds in fairly good condition.

Richards No. 4.—Ventilation, drainage and roadbeds in good condition.

Richards No. 5.—Ventilation, drainage and roadbeds in fairly good condition.

Scott.—Ventilation good; drainage fair; roadbeds in fairly good condition.

LEHIGH VALLEY COAL COMPANY

Sayre.—Sayre Shaft: Ventilation, drainage, roadbeds and condition as to safety, good.

Sioux Nos. 1 and 3.—Ventilation, drainage and roadbeds in fair condition.

GREENOUGH RED ASH COAL COMPANY

Greenough.—General condition, good.

ENTERPRISE COAL COMPANY

Enterprise.—Enterprise Shaft: Ventilation fair; drainage and roadbeds in poor condition.

Enterprise No. 3 Slope.—Ventilation, drainage and roadbeds in fair condition.

COLONIAL COLLIERIES COMPANY

Natalie.—Natalie No. 1: Ventilation, drainage and roadbeds in fair condition.

Natalie No. 2.—Ventilation and drainage fair; roadbeds in poor condition.

Natalie No. 3. Ventilation, drainage and roadbeds in fairly good condition.

Natalie No. 4. Ventilation, drainage and roadbeds in good condition.

EXCELSIOR COAL COMPANY

Excelsior.—General condition, fair.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held at Pottsville, March 22 and 23.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas Brennan, Shamokin.

Assistant Mine Foremen

Harry Edwards, Thomas McLaughlin, Locust Gap; Richard Keely, Centralia.

SIXTEENTH DISTRICT

NORTHUMBERLAND COUNTY

Shamokin, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines of the Sixteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

M. McLAUGHLIN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	45
Number of mines in operation,	45
Number of tons of coal shipped to market,	2,533,263
Number of tons used at mines for steam and heat,	308,391
Number of tons sold to local trade and used by employes,	66,685
Number of tons produced,	2,908,339
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,995
Number of persons employed outside,	2,111
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	48
Number of non-fatal accidents outside,	15
Number of tons of coal produced per fatal accident inside,	121,181
Number of persons employed per fatal accident inside,	208
Number of persons employed per fatal accident outside,	1,055
Number of persons employed per non-fatal accident inside,	104
Number of persons employed per non-fatal accident outside,	141
Number of wives made widows,	19
Number of children made orphans,	34
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	22
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	8
Number of electric motors used outside,	1
Number of fans in use,	43
Number of furnaces in use,	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	26
Number of new mines opened,	4
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company, ...	1,350,995
Mineral Railroad and Mining Company, ...	910,700
Shipman Koal Company, ...	227,601
Excelsior Coal Company, ...	175,262
Buck Ridge Coal Company, ...	141,759
Trevorton Colliery Company, ...	102,022
Total, ...	2,908,339

Production by Counties

Northumberland, ...	2,908,339

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron, Co.,	7	-------	7	15	3	18	192,999	90,066	2,403	980	3,383	343	-------	160	327
Mineral Railroad and Mining Co.,	13	-------	13	19	6	25	70,054	47,932	1,482	721	2,203	114	-------	78	120
Shipman Koal Co.,	1	1	2	5	-------	5	227,601	45,520	315	162	477	315	162	63	-------
Excelsior Coal Co.,	2	-------	2	3	1	4	87,631	58,422	387	86	473	193	-------	129	86
Buck Ridge Coal Co.,	-------	-------	-------	5	5	10	-------	28,352	270	72	342	-------	-------	54	14
Trevorton Colliery Co.,	1	1	2	1	-------	1	102,022	102,022	138	90	228	138	90	138	-------
Totals and averages for district,	24	2	26	48	15	63	121,181	60,590	4,995	2,111	7,106	208	1,055	104	141

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1			1				1	3	12.50
Falls of slate,	1	1	1	1	1	1				1			7	29.17
Mine cars,	1									2	1		4	16.66
Explosions of gas,					5								5	20.83
Explosions of powder and dynamite,			1						1				2	8.33
Blasts, premature and otherwise,								1					1	4.17
Rush of coal,	1												1	4.17
Struck by piece of rock,							1						1	4.17
Totals,	3	1	2	1	7	1	1	2	1	3	1	1	24	100.00
Causes of Accidents Outside														
Machinery,			1										1	50.00
By mules,										1			1	50.00
Totals,			1							1			2	100.00
Grand totals inside and outside,	3	1	3	1	7	1	1	2	1	4	1	1	26	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,						1				1		3	5	10.42
Falls of slate,	1	1			2	1	1		1		2		9	18.75
Falls of roof,	1			1			2						4	8.34
Mine cars,		1					2	2		1		2	8	16.67
Explosions of gas,	2					1					1		4	8.34
Explosions of powder and dynamite,											1		1	2.08
Blasts, premature and otherwise,	2			1	1	1				1		1	7	14.58
Falling into slopes, etc.,	1	1					1						3	6.25
Crushed at batteries,									1				1	2.08
Machinery,					1								1	2.08
By falling,				1									1	2.08
Struck by timber,					1		1						2	4.17
Struck by brake stick,										1			1	2.08
Rush of gob,										1			1	2.08
Totals,	7	3		3	5	4	7	2	2	5	4	6	48	100.00
Causes of Accidents Outside														
Cars,		3		1					1	1	1	2	9	60.00
Machinery,										1			1	6.67
By falling,				1						1			2	13.33
Struck by rope,				1									1	6.67
Struck by chain,										1			1	6.67
Struck by timber,											1		1	6.66
Totals,		3		3					1	4	2	2	15	100.00
Grand totals inside and outside,	7	6		6	5	4	7	2	3	9	6	8	63	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,					1								1
Miners,	2		2	1	2	1	1	2	1	2		1	15
Miners' laborers,		1											1
Doorboys and helpers,					1								1
Repairmen,	1												1
Machine runners,					2								2
Chargemen,					1								1
Bottommen,										1			1
Engineers,											1		1
Totals,	3	1	2	1	7	1	1	2	1	3	1	1	24
Outside													
Jig-runners,			1										1
Drivers,										1			1
Totals,			1							1			2
Grand totals inside and outside,	3	1	3	1	7	1	1	2	1	4	1	1	26

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	6	2		1	3	3	4	1	1	4	4	5	34
Miners' laborers,	1			1	1		2		1				6
Drivers and runners,							1	1		1		1	4
Topmen,		1											1
Roadmen,				1									1
Timbermen,					1								1
Loaders,						1							1
Totals,	7	3		3	5	4	7	2	2	5	4	6	48
Outside													
Blacksmiths and carpenters,				1									1
Engineers and firemen,		1											1
Slate pickers (boys),										1			1
Topmen,		1								1		1	3
Conductors,		1											1
Laborers,				1									1
Teamsters,				1									1
Miners,									1				1
Oilers,										1			1
Pumpmen,										1			1
Drivers,											1		1
Timbermen,											1		1
Runners,												1	1
Totals,		3		3					1	4	2	2	15
Grand totals inside and outside,	7	6		6	5	4	7	2	3	9	6	8	63

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1				1		1			2	1	1	7
Welsh,								1					1
German,								1					1
Polish,	1	1	2	1									5
Slavonian,			1										1
Austrian,					4	1							5
Russian,					2				1	2			5
Bohemian,	1												1
Totals,	3	1	3	1	7	1	1	2	1	4	1	1	26

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	4		5	2	2	2	1		4	2	4	27
English,										1			1
German,		1				1	1		1		2		6
Polish,	2	1			3		2		1	2	2	1	14
Hungarian,												1	1
Italian,	1			1				1		1			4
Slavonian,						1						1	2
Lithuanian,	1												1
Russian,	2						2		1	1		1	7
Totals,	7	6		6	5	4	7	2	3	9	6	8	63

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
North Franklin Colliery:															
North Franklin No. 1,	Drift,	Non-gas.,	Fan,	18	6.0	5.4	70	0.7	Guibal,	Electricity,	8	78,000	58,000	79,000	433
North Franklin No. 2,	Slope,	Non-gas.,	Fan,	18	6.0	5.5	85	2.1	Guibal,	Steam,	6	71,000	52,000	73,000	
North Franklin No. 3,	Slope,	Gaseous,	Fan,	15	5.1	4.5	50	0.1	Guibal,	Electricity,	5	57,000	35,000	58,000	
Bear Valley Colliery:															
Bear Valley No. 1,	Shaft,	Gaseous,	Fan,	18	5.9	4.9	95	2.1	Guibal,	Steam,	7	46,000	43,000	47,000	473
Bear Valley No. 2,	Shaft,	Gaseous,	Fan,	12	4.0	3.6	50	0.5	Guibal,	Steam,	5	27,000	25,000	28,000	
Bear Valley No. 3,	Drift,	Non-gas.,	Fan,	15	4.0	5.0	90	0.6	Guibal,	Steam,	3	38,000	36,000	39,000	
Burnside Colliery:															
Burnside No. 1,	Drift,	Non-gas.,	Fan,	15	4.2	5.6	90	1.0	Guibal,	Steam,	4	40,000	35,000	41,000	512
Burnside No. 2,	Shaft,	Gaseous,	2 Fans,	15	4.0	5.0	90	1.1	Guibal,	Steam,	6	41,000	37,000	42,000	
				15	4.0	5.0	90	1.0			4	41,500	36,000	43,000	
Stirling Colliery:															
Stirling No. 1,	Slope,	Gaseous,	3 Fans,	21	7.2	6.0	60	1.1	Guibal,	Steam,	5	40,000	36,000	41,000	259
				18	6.0	5.4	65	1.0			8	33,000	32,000	34,000	
				15	4.6	4.3	80	1.0			6	34,000	30,000	35,000	
Henry Clay Colliery:															
Henry Clay No. 1,	Shaft,	Gaseous,	2 Fans,	21	7.0	6.3	68	1.4	Guibal,	Steam,	7	52,000	48,000	53,000	414
				15	4.0	5.0	120	1.2			6	49,000	45,000	50,000	
Big Mountain Colliery:															
Big Mountain No. 1,	Drift,	Non-gas.,	Fan,	12	4.0	3.6	120	1.5	Guibal,	Steam,	4	24,000	21,000	25,000	310
Big Mountain No. 2,	Slope,	Gaseous,	Fan,	18	6.0	5.5	75	.8	Guibal,	Steam,	3	40,000	36,000	41,000	
Big Mountain No. 3,	Slope,	Gaseous,	Fan,	18	6.0	5.5	70	1.2	Guibal,	Steam,	3	32,000	28,000	33,000	

Mineral Railroad and Mining Co.															
Cameron Colliery:															
Cameron No. 1,	Drift,	Non-gas.,	Fan,	20	6.10	6.2	40	0.2			2	45,375	32,000	47,000	
Cameron No. 2,	Drift,	Non-gas.,	Fan,	18	6.0	5.2	73	1.4			4	50,000	40,000	51,000	
Cameron No. 3,	Drift,	Non-gas.,	Fan,	18	6.0	5.7	75	1.4	Guibal,	Steam,	4	43,090	30,000	45,000	700
Cameron No. 4,	Drift,	Non-gas.,	Fan,	18	7.0	5.6	100	2.7			2	81,000	70,000	82,000	
Cameron No. 5,	Slope,	Gaseous,	Fan,	18	6.0	5.2	83	1.6			6	41,000	39,000	43,000	
Cameron No. 6,	Slope,	Gaseous,	Fan,	16	6.0	5.3	96	2.4			7	53,000	50,000	54,000	
Luke Fidler Colliery:															
Luke Fidler No. 1,	Shaft,	Gaseous,	Fan,	18	7.0	5.0	84	1.6	Guibal,	Steam,	8	55,000	51,000	56,000	
Luke Fidler No. 2,	Shaft,	Gaseous,	2 Fans,	18	7.0	5.2	106	2.4			7	75,000	69,000	76,000	335
				16	6.0	5.0	103	2.0	Guibal,	Electricity,	4	48,000	44,000	49,000	
Luke Fidler No. 3,	Drift,	Non-gas.,	Fan,	10	4.4	2.0	70	0.4	Sturtevant,	Steam,	2	13,000	10,000	14,000	
Hickory Ridge Colliery															
Hickory Ridge No. 1,	Slope,	Gaseous,	Fan,	18	7.0	5.6	76	0.8	Vulcan,	Steam,	4	55,000	50,000	56,000	300
Hickory Ridge No. 2,	Drift,	Non-gas.,	Fan,	15	4.9	4.6	84	1.2			2	54,000	49,000	55,000	
Hickory Swamp Colliery:															
Hickory Swamp No. 1,	Slope,	Gaseous,	2 Fans,	16	5.5	4.5	90	2.0	Mullen,	Steam,	7	42,000	30,000	43,000	147
				14	3.6	4.1	70	0.5			4	30,000	27,000	31,000	
Shipman Koal Co.															
Colbert Colliery:															
Colbert No. 1,	Shaft,	Gaseous,	Fan,	16	5.0	4.0	90	0.8	Guibal,	Steam,	6	52,000	40,000	53,500	315
Colbert No. 2,	Drift,	Non-gas.,	Fan,	16	5.0	4.0	75	0.5			4	33,000	21,000	34,500	
Excelsior Coal Co.															
Corbin Colliery:															
Corbin No. 1,	Drifts,	Non-gas.,	Fan,	10	8.0	3.6	100	1.5			4	23,000	21,000	24,000	
Corbin No. 2,															
Corbin No. 3,	Slope,	Gaseous,	Fan,	12	3.6	3.6	98	2.2	Beadle,	Steam,	2	26,000	24,000	27,000	387
Corbin No. 4,	Slope,	Gaseous,	Fan,	10	8.0	3.6	100	2.4			2	24,000	21,000	25,000	
Corbin No. 5,	Drift,	Non-gas.,	Fan,	12	3.6	3.6	98	2.3			4	25,000	22,000	26,000	
Corbin No. 6,	Slope,	Gaseous,													
Buck Ridge Coal Co.															
Buck Ridge Colliery:															
Buck Ridge No. 1,		Gaseous,	2 Fans,	14	4.6	4.6	85	0.6	Pollock,		5	28,000	25,000	29,000	
				12	3.6	3.6	100	0.4	Guibal,	Steam,	4	27,000	22,000	28,000	270
Buck Ridge No. 2,	Slopes,	Non-gas.,	Fan,	6	2.5	2.0	180	0.6	Stine,		3	9,000	8,000	10,000	
Buck Ridge No. 3,		Non-gas.,	Fan,	6	2.5	2.0	200	0.6	Stine,		4	10,000	9,000	11,000	
Trevorton Colliery Co.															
Katherine Colliery:															
Katherine No. 1,	Drift,	Non-gas.,	Fan,	7	3.0	2.5	325	0.8	Stine,	Steam,	6	28,000	26,000	29,000	
Katherine No. 2,	Drift,	Non-gas.,													138
Katherine No. 3,	Drift,	Non-gas.,	Fan,	7	3.0	2.5	300	0.7	Stine,	Steam,	2	28,000	25,000	29,400	

Note.—No report made of air measurements of six non-gaseous mines ventilated by natural means.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.						
Bear Valley,				Reese Tasker, Mining Supt.	Pottsville,	
Big Mountain,				P. F. Brennan, Division Supt.	Shamokin,	
Burnside,	Northumberland,	W. J. Richards,	Pottsville,	John C. Brown, Inside District Supt.	Shamokin,	P. and R.
Henry Clay,				J. P. Knapp, Outside Dist. Supt.	Shamokin,	
North Franklin,						
Stirling,						
Mineral Railroad and Mining Co.						
Cameron,						
Hickory Ridge,						
Hickory Swamp,	Northumberland,	Robert A. Quin,	Wilkes-Barre,	Wm. R. Reinhardt,	Shamokin,	Pennsylvania
Hickory Swamp Washery,						
Luke Fidler,						
Shipman Koal Co.						
Colbert,	Northumberland,	J. M. Stauffer,	Hazleton,			Pennsylvania
Excelsior Coal Co.						
Corbin,	Northumberland,	A. Robertson,	Pottsville,	Geo. W. Robertson,	Shamokin,	P. and R.
Buck Ridge Coal Co.						
Buck Ridge,	Northumberland,	D. H. McGee,	Shamokin,			Penna. and P. and R.
Trevorton Colliery Co.						
Katherine,	Northumberland,	C. T. Starr,	Shamokin,	L. I. Van Epps,	Shamokin,	P. and R.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
North Franklin,	Northumberland,	260,796	31,919	4,706	297,421	214	648	1	3	145,475	45,110	.....	48
Bear Valley,		206,554	26,637	1,026	234,217	255	744	1	2	149,775	53,285	.....	66
Burnside,		342,447	53,671	6,594	402,712	253	735	2	4	198,750	29,040	.....	100
Stirling,							288	1	3	74,950	5,388	.....	
Henry Clay,		359,703	39,312	17,630	416,645	271	614	1	4	141,650	16,562	.....	76
Big Mountain,							354	1	2	91,525	25,174	.....	
Totals,		1,169,500	151,539	29,956	1,350,995	.....	3,383	7	18	802,125	174,559	.....	290
Mineral Railroad and Mining Co.													
Cameron,	Northumberland,	259,509	39,496	21,264	320,269	217	962	8	12	147,625	24,903	.....	125
Luke Fidler,		145,320	25,705	11,307	182,332	192	498	3	3	77,400	9,714	.....	70
Hickory Ridge,		239,241	22,820	894	262,955	209	710	1	6	151,825	33,200	.....	88
Hickory Swamp,									4				
		644,070	88,021	33,465	765,556	.....	2,170	13	25	376,850	67,907	.....	283
Hickory Swamp Washery,	Northumberland,	134,734	10,410	.....	145,144	*530	33	.....	.....	.....	.....	.....	.....
Totals,		778,804	98,431	33,465	910,700	.....	2,203	13	25	376,850	67,907	.....	283

*Day and night shifts.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Shipman Koal Co.													
Colbert,	Northumberland,	211,303	15,600	698	227,601	291	477	2	5	118,900	20,825	4,280	31
Excelsior Coal Co.													
Corbin,	Northumberland,	151,042	23,620	----------	175,262	235	473	2	4	216,250	9,625	----------	37
Buck Ridge Coal Co.													
Buck Ridge,	Northumberland,	122,873	17,230	1,606	141,759	288	342	----	10	54,220	26,025	----------	22
Trevorton Colliery Co.													
Katherine,	Northumberland,	99,141	1,921	960	102,022	216	228	2	1	44,250	14,650	----------	24
Grand totals,		2,533,263	308,391	66,685	2,908,339	-------	7,166	26	63	1,612,595	313,591	4,280	687

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	-------	-------	64	8,000	8,000	6	------	7	141	17,790	21	047	7,274	4	4
Mineral Railroad and Mining Co.,		-------	-------	52	7,012	7,012	11	------	2	80	9,220	13	360	3,888	2	5
Shipman Koal Co.,		-------	-------	9	1,125	1,125	1	------	------	20	1,073	3	48	824	-------	1
Excelsior Coal Co.,		16	512	2	150	662	2	------	------	[illegible]	240	2	98	300	-------	-------
Buck Ridge Coal Co.,		-------	-------	8	1,380	1,380	3	------	------	20	707	4	00	750	-------	-------
Trevorton Colliery Co.,		-------	-------	2	600	600	------	------	------	6	325	-------	--	-------	-------	1
Totals,		16	512	137	18,267	18,779	23	------	9	275	29,360	43	4	13,036	6	11

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside												Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside		Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	8	30	----	961	422	138	28	13	356	447	2,403		------	7	35	130	125	48	18	617	980	3,383
Mineral Railroad and Mining Co.,		4	11	29	648	190	115	26	38	42	379	1,482		------	5	44	105	197	14	27	329	721	2,203
Shipman Koal Co.,		2	----	5	134	60	20	3	3	78	10	315		1	1	10	20	47	30	3	50	162	477
Excelsior Coal Co.,		1	3	3	216	89	28	------	2	33	12	387		1	1	5	17	13	19	----	30	86	473
Buck Ridge Coal Co.,		1	----	3	125	28	14	2	6	91	------	270		1	1	6	21	10	----	1	32	72	342
Trevorton Colliery Co.,		1	1	2	52	14	10	------	------	30	28	138		1	2	6	10	12	2	1	56	90	228
Totals,		17	45	42	2,136	803	325	59	62	630	876	4,995		4	17	106	303	404	113	50	1,114	2,111	7,106

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	23	19	19	22	23	22	15	16	19	24	23	23	248
Mineral Railroad and Mining Co.,		20	14	18	20	22	17	13	12	11	18	21	20	206
Shipman Koal Co.,		24	22	26	21	25	25	25	26	25	25	24	23	291
Excelsior Coal Co.,		22	16	17	21	23	23	18	14	13	23	23	22	235
Buck Ridge Coal Co.,		24	23	26	23	25	26	25	24	25	22	22	23	288
Trevorton Colliery Co.,		23	14	16	19	19	15	9	13	19	23	22	24	216

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 12	Mathew Stasney,	Bohemian,	Repairman,	38	S.			Luke Fidler,		Instantly killed by being caught between car and top rock on low side of gangway, while riding on front end of a trip of mine cars.
	Louis Kehler,	American,	Miner,	51	M.	1	7	Cameron,		Killed by rush of coal from face of breast while sinking a prop hole.
15	Joseph Norcavitch,	Polish,	Miner,	40	M.	1		Hickory Ridge,		Instantly killed by fall of slate while crossing the breast.
Feb. 15	John Godskie,	Polish,	Laborer,	45	M.	1	3	Corbin,		Instantly killed by fall of slate at face of gangway.
Mar. 3	Joseph Jancoskie,	Slavonian,	Miner,	48	M.	1	6	Bear Valley,		Fatally burned by explosion of a keg of powder, which was ignited by a spark from his lamp. Died March 9.
10	Frank Simon,	Polish,	Miner,	33	S.			Luke Fidler,		Instantly killed by fall of slate at face of chute.
22	Anthony B. Pasco,	Polish,	Jig-runner,	16	S.			Katherine,	Northumberland,	Killed by being caught by a revolving shaft that operates the jigs. He was found twisted around the shaft. The shaft is directly under the main traveling way of the breaker, which is protected by hand and guard rails. It is not known why the boy crawled into the small space in which the shaft revolved. Outside.
April 19	Anthony Suckel,	Polish,	Miner,	32	M.	1	2	Burnside,		Head lacerated and injured internally. He fired a blast at the face of the breast, which removed three props, and while he was resetting the props the top slate fell on him. Died April 26.
May 10	Frank Keshenoskie,	Russian,	Miner,	24	M.	1		Colbert		Instantly killed by fall of coal at working face while removing pillars.

May	13	Anthony Saborney,	Russian,	Miner,	43	M.	1	2	Cameron,	Northumberland,	Fatally injured. (Head lacerated, arm broken and chest crushed) by fall of slate that followed him down the chute and caught him 150 feet from working face.
		John Moore,	American,	Fire boss,	36	M.	1	1			Fatally burned by an explosion of gas in tunnel. They were driving tunnel from No. 4 seam to No. 2 seam. During the night they cut the seam in the tunnel which was making gas. About 6 o'clock in the morning Moore found them sitting in No. 5 vein gangway and was told about the gas. He said he would make an examination and he went into tunnel carrying a safety lamp. The men followed him with naked lights and ignited the gas. Moore and Rubolish died the same day, Shemulskie Satirick died June 1, and Jock June 4.
		John Rubolish,	Austrian,	Machine helper	48	M.	1				
	27	Joseph Shemulskie,	Austrian,	Machine runner.	48	M.	1	3	Cameron,		
		Joseph Satirick,	Austrian,	Machine runner.	39	M.	1				
		John Jock,	Austrian,	Chargeman,	28	M.	1	3			
June	8	George Peasle,	Austrian,	Miner,	45	M.	1		Luke Fidler,		Instantly killed by fall of slate at working place while removing pillars.
July	26	Simon Fisher,	American,	Miner,	71	M.	1		Stirling,		Fatally injured while starting a battery by a piece of rock that came through battery, turned into the manway, striking him on the leg. Died July 30.
Aug	8	James Kramer,	German,	Miner,	33	M.	1	5	Big Mountain,		Face and chest lacerated and burned by premature blast at working face while removing pillars. Died August 11.
	25	Evan Jones,	Welsh,	Miner,	29	M.	1		Henry Clay,		Fatally injured by fall of coal at face of breast. Died the same evening.
Sept.	6	John Bullock,	Russian,	Miner,	28	S.			Cameron,		Face, arms and body burned by the explosion of a keg of powder ignited by a spark from an open lamp. Died September 21.
Oct	6	Benjamin Doornack,	Russian,	Miner,	31	M.	1	2	Hickory Swamp		Instantly killed by mine car. A loaded car was ascending the slope when the rope broke. The car ran back and struck him while he was passing the bottom of the slope.
	10	Tony Morgan,	American,	Bottomman,	19	S.			Corbin,		Fatally injured by mine car. A loaded car was ascending the slope when the rope broke about 120 feet above the socket. The car ran back and struck him at the bottom of the slope. Died the same day.
	11	Frank Sherman,	American,	Miner,	61	M.	1		Katherine,		Instantly killed by fall of slate at face of breast.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 13	Ant. Lesniack, ------	Russian, ---	Driver, -------	20	S.	----	----	Colbert, -------	Northumberland,	Instantly killed by mule falling on him. While carting ashes to the ash dump the mule left the main road causing the ash cart to strike a stump that protruded from the ground. The sudden contact upset both cart and mule and the mule fell on him. Outside.
Nov. 15	Joseph McCall, ------	American,--	Engineer, ---	20	S.	----	----	Burnside, -----		Instantly killed by electric motor and eight cars passing over his body. When he was approaching the mouth of the drift he attempted to get off motor to get some sand, and he fell, and motor and cars ran over him.
Dec. 13	Samuel Stroh, --- ----	American,--	Miner, -------	38	M.	1	----	North Franklin		Fatally injured by fall of coal. He and his partner were driving a small breast through the center of pillar preparing to take it out. They were working at face of breast 30 feet from air course, when a fall of coal from the pillar caught them on top of the outside manway, covering both men completely except their heads. Died December 19.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	John Smidana,	Russian,	Miner,	37	S.	Henry Clay,		Head, back and side lacerated and bruised by flying pieces of coal from premature blast.
11	John Metcavage,	Polish,	Miner,	25	S.	Cameron,		Left leg fractured by piece of top rock falling on it at working face while removing pillars.
17	Irvin Conrad,	American	Miner,	37	S.	Hickory Ridge,		Back wrenched by falling in manway while he was measuring it.
18	John Washelefskie,	Lithuanian,	Miner,	43	M.	Colbert,		Small bone in ankle fractured by flying piece of coal from blast.
26	Joseph Swatskie,	Russian,	Miner,	28	M.	Hickory Swamp,		Head, hands and body burned by gas ignited by an open lamp.
	John Barnavage,	Polish,	Miner,	20	M.			
	Joseph Lawa,	Italian,	Laborer,	24	S.	Stirling,		Leg fractured by fall of slate at face of gangway.
Feb. 1	Charles Luskuskie,	American,	Conductor,	17	S.	Buck Ridge,	Northumberland,	Leg fractured while jumping on cars. Outside.
6	William F. Weary,	American,	Miner,	52	M.	Hickory Ridge,		Left arm fractured by falling down manway while taking timber up the breast.
8	Edward Gable,	German,	Topman,	35	M.	Big Mountain,		Arm badly lacerated by a mine car passing over it while cleaning the tongues on top of slope. Arm was amputated at State Hospital.
10	John Borton,	Polish,	Miner,	26	M.	Burnside,		Leg fractured by fall of slate at face of breast.
16	Herbert Gass,	American,	Topman,	22	S.	Buck Ridge,		Arm fractured by falling under car while in the act of detaching the hook from the car. Outside.
17	James Graham,	American,	Locomotive engineer.	29	M.	Buck Ridge,		Knee cap dislocated. The trip of mine cars collided with the engine and he was thrown out of the cab. Outside

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April 3	Calvin Martz,	American	Laborer,	19	S.	Corbin,		Finger taken off at first joint while coupling cars while they were in motion. Outside.
11	John Gaughan,	American	Roadman,	37	S.	Luke Fidler		Right leg fractured by fall of roof while taking down some loose rock from top of gangway.
21	Wm. Mowrey,	American	Miner,	39	M.	Bear Valley		Face lacerated and right eye destroyed by a delayed blast to which he returned after he thought the squib had gone off.
24	Samuel Snyder,	American	Teamster,	66	M.	Luke Fidler,		Right leg fractured below knee by slipping and falling on some timber while driving through the timber yard. Outside.
26	Dearl Rader,	American	Carpenter,	24	M.	Stirling,	Northumberland,	Leg fractured below knee by haulage rope striking him while he was standing near track. Outside.
27	John Kershick,	Italian	Laborer,	28	S.	Burnside,		Legs fractured. He was building a wall on high side of gangway, and while placing rock on top of wall he slipped and fell, and the rock fell on him.
May 11	Phillip Moraskie,	Polish	Laborer,	23	S.	Hickory Ridge,		Thumb fractured by a small sheave wheel falling on it.
18	Charles Snyder,	American	Miner,	25	M.	Colbert,		Collar bone broken by fall of slate at face of breast.
20	William S. Weary,	American	Timberman,	52	M.	Hickory Ridge,		Back sprained in lifting a gangway collar.
	Ant. Bobcuskie,	Polish	Miner,	53	M.	Cameron,		Compound fracture of leg by fall of slate at face of breast.
23	John Fabshuskie,	Polish	Miner,	50	M.	Luke Fidler,		Head and body lacerated by flying pieces of coal from premature blast.
June 2	Roy Kline,	American	Miner,	31	M.	Katherine,		Arm fractured and body bruised by fall of coal at face of chute.

June	26	Andrew Pella,	German,	Miner,	31	M.	Colbert,		Shoulder dislocated by fall of slate at face of breast.
	29	Bert M. Koble,	American,	Miner,	36	M.	Buck Ridge,		Face and arm lacerated by flying pieces of coal from premature blast.
	30	Mat. Sunbury,	Slavonian,	Loader,	18	S.	Cameron,		Face and hands burned by gas.
July	10	John Gerbock,	Polish,	Miner,	40	M.	Stirling,		Left arm fractured by being caught between car and rib of gangway while helping to place a derailed car on track.
	12	Daniel Kehler,	American,	Miner,	56	M.	Cameron,		Ribs fractured by a piece of top rock falling on him while sinking a prop hole at face of chute.
	17	Frank Humphrey,	American,	Driver,	22	S.	Cameron,		Right leg fractured by being struck by piece of timber while standing outside the safety hole at bottom of slope. The first car of an empty trip going down the slope became uncoupled and knocked out some timber.
	20	Frank Krolinskie,	Polish,	Miner,	34	M.	Hickory Swamp,		Left foot fractured by fall of rock at face of gangway while barring down loose rock.
	25	Peter Mosloskie,	Russian,	Laborer,	28	S.	Corbin,		Body squeezed by being caught between car and gangway door while trying to jump on the front end of trip of cars.
	26	Rudolph Miller,	German,	Laborer,	34	M.	Burnside,		Leg fractured by fall of slate at face of breast.
		Adam Bilskie,	Russian,	Miner,	25	S.	Colbert,	Northumberland,	Head, face and back lacerated by falling down manway. He fired a blast in No. 11 breast and went down No. 10 breast for safety, when a blast fired in No. 10 breast caused him to fall down manway.
Aug.	1	Al. Ambrose,	Italian,	Miner,	23	S.	Buck Ridge,		Nose fractured and head and arm lacerated by being caught between car and face of slope that he was sinking.
	24	Stephen Koperdock,	American,	Driver,	20	S.	Cameron,		Collar bone and several ribs fractured by being caught between mine car and rib of tunnel.
Sept.	11	Stany Rozufskie,	Polish,	Miner,	33	M.	Henry Clay,		Body bruised by being knocked under car. While crossing the tracks leading to the breaker tip a loaded car struck him. Outside.
	15	Paul Lebar,	Russian,	Laborer,	29	S.	Buck Ridge,		Leg fractured by fall of slate which caught against a mine car while loading it at face of gangway.
	25	George Snyder,	German,	Miner,	49	M.	Bear Valley		Right leg fractured by piece of slate that slid out of battery while he was in the act of starting it.
Oct.	7	John Socks,	Polish,	Miner,	31	M.	Buck Ridge,		Arm fractured by fall of coal at face of breast while dressing off a shot.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 10	William Whary,	American,	Dumpman,	21	S.	Cameron,	Northumberland,	Collar bone fractured by being caught between empty car he was taking from the dump and loaded car that was on way to the dump. Outside.
16	John Castine,	Italian,	Driver,	24	S.	Hickory Swamp,		Left leg fractured by being bumped between cars. While releasing spreader chain from car his light went out, and before he could get out of the way he was bumped between the cars.
18	Joseph Moyonk,	Polish,	Miner,	44	M.	Cameron,		Ribs fractured. He was in the manway while the loader was loading a car, and the brake stick became dislodged, swung around and caught him against chute.
24	Samuel Faust,	American,	Miner,	47	S.	Cameron,		Rib fractured by rush of gob. While retimbering traveling way between two lifts the manway gave way and the gob rushed in on him.
25	George Esher,	American,	Topman,	18	S.	Hickory Ridge,		Leg fractured. He was throwing chain on loaded cars at rope haulage at breaker tip. He put the hook on the loaded car and gave the signal to throw the clutch to pull the car to the dump. At the same time the chain formed a loop around his leg, and the loop tightened on his leg when clutch was thrown in. Outside.
26	Steve Ombitskie,	Russian,	Miner,	33	M.	Henry Clay,		Hand blown off. While drilling out a hole loaded with dynamite that had missed fire, the dynamite exploded.

Oct.	26	Thomas Hague,	English,	Oiler,	16	S.	Buck Ridge,		Leg fractured by cars. He tried to take side chains off cars while in motion. He got one chain off and while crossing track to take the other off he slipped and fell, and the car passed over his leg. Outside.
		Clarence Mattis,	American,	Slatepicker,	16	S.	Cameron,		Double fracture of right leg by falling into jig while returning from top of jig after examining the scraper line. Outside.
Nov.	6	George Derk,	German,	Miner,	28	S.	Colbert,		Body injured by fall of slate at working face while removing pillars.
	10	Joseph Vaseleskie,	Polish,	Miner,	34	M.	Henry Clay,		Face and hands burned by explosion of gas in chute. The gauze of a lamp was pierced by a pick and the flame ignited gas.
	11	Stany Zobruskie,	Polish,	Miner,	35	M.	Corbin,		Left leg fractured above knee by fall of slate at working face while removing pillars.
	15	John Glenaskie,	American,	Driver,	16	S.	Cameron,		Two ribs fractured by being caught between mine cars at breaker tip. Outside.
	22	Isaac Fleming,	American,	Miner,	43	M.	North Franklin,		Middle finger lacerated by the explosion of a dynamite cap that he thought had missed fire.
	23	B. C. Cleaver,	German,	Timberman,	55	M.	Buck Ridge,	Northumberland,	Small bone in leg fractured by piece of timber rolling on it in timber-yard. Outside.
Dec.	2	Joseph Longo,	American,	Car-runner,	22	S.	North Franklin,		Left hand crushed by being caught under wheel of mine car while putting a derailed car on track. Outside.
	6	Ant. Klaminskie,	Polish,	Miner,	48	M.	Big Mountain,		Leg fractured by fall of coal on gangway while replacing leg under collar.
	7	Joseph Searbo,	Russian,	Miner,	29	M.	Corbin,		Left shoulder blade fractured by falling under cars while trying to jump on front end of loaded trip that the driver was taking to the bottom of slope.
	13	Abraham Adams,	American,	Miner,	34	M.	North Franklin,		Body and limbs bruised by fall of coal from pillar. His partner was fatally injured.
	16	Frank Suminkie,	American,	Miner,	33	M.	Buck Ridge,		Leg fractured below knee by fall of top coal at face of breast.
	18	Andrew Gessick,	Slavonian,	Miner,	24	S.	Burnside,		Head and back injured by premature blast at face of chute.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 18	Truman Troutman, --	American,--	Driver, ----------	24	S.	Cameron, ---------	Northumberland,	Arm fractured by falling under cars. While taking two loaded mine cars to bottom of slope he slipped and fell under cars.
20	David Hardish, ------	Hungarian,	Topman, ---------	27	S.	Hickory Ridge, ---		Foot crushed by car running over it while taking chain off car at top of slope. Outside.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

North Franklin and Burnside.—Safety conditions and drainage good; ventilation fair.

Bear Valley.—Safety conditions good; ventilation and drainage fair.

Stirling, Henry Clay and Big Mountain.—Safety conditions, ventilation and drainage, good.

MINERAL RAILROAD AND MINING COMPANY

Cameron, Luke Fidler, Hickory Ridge and Hickory Swamp.— Safety conditions good; ventilation and drainage fair.

SHIPMAN KOAL COMPANY

Colbert.—Safety conditions good; ventilation and drainage fair.

EXCELSIOR COAL COMPANY

Corbin.—Safety conditions good; ventilation and drainage fair.

BUCK RIDGE COAL COMPANY

Buck Ridge.—Safety conditions good; ventilation and drainage fair.

TREVORTON COLLIERY COMPANY

Katherine.—Safety conditions and ventilation good; drainage fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

North Franklin Colliery.—A tunnel was driven in the self-acting plane in the Rennie water level workings, from No. 5 vein north to No. 7 vein, a distance of 309 feet.

Bear Valley Colliery.—A tunnel was driven in the No. 2 shaft from No. 10 vein north to No. 11 vein, a distance of 884 feet. A tunnel driven in the No. 2 shaft from No. 10 vein south to No. 4 vein, a distance of 618 feet. An air tunnel was driven in the No. 2 shaft from No. 10 vein south to No. 4 vein, a distance of 628 feet.

Burnside Colliery.—A tunnel was driven in the shaft, third lift, from east No. 7 vein, south dip, south to No. 9 vein, a distance of 183 feet. A tunnel was driven in the second lift of No. 4 underground slope in water level workings, from No. 5 vein north to No. 4 vein, a distance of 90 feet. A tunnel was driven in shaft second lift, No. 6 self-acting plane, from No. 5 vein south to No. 4 vein, a distance of 171 feet.

Henry Clay Colliery.—An air tunnel was driven in shaft second lift, from No. 11 vein north dip to No. 11 vein south dip, a distance of 438 feet.

MINERAL RAILROAD AND MINING COMPANY

Cameron Colliery.—A tunnel was driven in the shaft from No. 4 vein to No. 2 vein, a distance of 500 feet. A tunnel was driven in the rock slope from No. 8 vein north dip to No. 9 vein south dip, a

distance of 85 feet. No. 1 slope was concreted from the surface down, a distance of 90 feet. No. 2 vein inlet was concreted from the surface down to the solid rock, a distance of 110 feet, and the upcast was concreted from the surface down, a distance of 70 feet.

A 20-foot fan was erected on the No. 2 vein, and a 16 by 24 inch Vulcan engine enclosed in a concrete block building was installed to operate it. A new carpenter and blacksmith shop 142 feet long, 22 feet wide and 18 feet high, was built of concrete blocks.

Luke Fidler Colliery.—A 12-foot fan was erected over the Lambert drift, and a 10 by 12-inch Sturtevant engine enclosed in a concrete building was installed to operate it. No. 4 slope in No. 2 shaft was extended 250 feet, making a total length of 1,090 feet. At the bottom of No. 4 slope a backswitch was driven in rock a distance of 55 feet. A single track engine plane was driven in No. 1 shaft in the No. 4 vein, a distance of 1,125 feet, operated by a 12 by 12-inch duplex engine.

Hickory Ridge Colliery.—An accommodation slope was driven in No. 4 vein a distance of 1,580 feet, and a 16 by 30 inch duplex engine enclosed in a frame building 35x22 feet was installed to hoist from it. From the bottom of No. 8 slope a turnout was driven through rock to No. 5 vein, a distance of 80 feet. A gangway was driven in No. 5 vein east 203 feet, and from that point a tunnel was driven to No. 4 vein a distance of 118 feet. A duplex Goyne pump, 16 by 14 by 18 inches, was erected to pump water to the breaker for coal washing, and is enclosed in a brick building 30 feet long, 16 feet wide and 18 feet high. A locomotive house 66 feet long, 16 feet wide and 19 feet high, was built of concrete blocks.

SHIPMAN KOAL COMPANY

Colbert Colliery.—A 175 horse power water tube boiler was installed, and a conveyor line 317 feet long was built to convey the ashes from the boiler plant. A concrete supply house 14 by 40 feet, and two additional water tanks of 30,000 gallons capacity, were erected.

BUCK RIDGE COAL COMPANY

Buck Ridge Colliery.—A rock slope was driven on a 35 degree pitch from No. 15 vein to No. 12 vein, a distance of 464 feet, and a pair of 15 by 30-inch direct-acting engines installed to hoist from it.

A slope was sunk in the No. 13 vein south dip, a distance of 164 feet, and a pair of 12 by 14 inch Flory engines installed to hoist from it.

A new 6-foot fan was erected to ventilate this slope and two Cameron pumps installed to pump the water. A 330 horse power water tube boiler was installed. An 8-inch bore hole was drilled 295 feet deep to rock slope, for a rope haul; a 12-inch bore hole was drilled 305 feet from surface to pump house in No. 2 slope to pump the water, and a 12-inch bore hole was drilled from surface to No. 2 pump house, cased with 10-inch well casing, in which is placed a 6-inch steam line to pumps.

TREVORTON COLLIERY COMPANY

Katherine Colliery.—A tunnel was driven from No. 7 vein south dip to No. 7 vein north dip, a distance of 210 feet. A double track gravity plane was driven from No. 2 east gangway No. 1 tunnel, to No. 18 breast counter above, a distance of 400 feet.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Pottsville, March 22 and 23. The Board of Examiners was composed of the following: Martin McLaughlin, Mine Inspector, Shamokin; Edward Brennan, Superintendent, Shamokin; William Culton, Miner, Shamokin; Patrick Ryan, Miner, Shamokin.

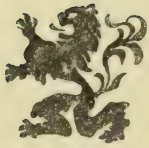
The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John L. Manney, Shamokin.

Assistant Mine Foremen

William Way, William Hand, E. V. McKeever, George J. Harris, Charles Narcavage, Joseph J. McCormick, William Morningwake, Frank D. Smith, Shamokin; Harry Pengelly, John Hestor, Trevorton; Robert Kramer, Cameron Township.



SEVENTEENTH DISTRICT

CARBON AND SCHUYLKILL COUNTIES

Lansford, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Seventeenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
ISAAC M. DAVIES, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	41
Number of mines in operation,	41
Number of tons of coal shipped to market,	3,984,373
Number of tons used at mines for steam and heat,	529,264
Number of tons sold to local trade and used by employes,	158,067
Number of tons produced,	4,671,704
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	5,643
Number of persons employed outside,	3,004
Number of fatal accidents inside of mines,	26
Number of fatal accidents outside,	7
Number of non-fatal accidents inside of mines,	33
Number of non-fatal accidents outside,	7
Number of tons of coal produced per fatal accident inside,	179,681
Number of persons employed per fatal accident inside,	217
Number of persons employed per fatal accident outside,	429
Number of persons employed per non-fatal accident inside,	171
Number of persons employed per non-fatal accident outside,	429
Number of wives made widows,	19
Number of children made orphans,	44
Number of steam locomotives used inside of mines,	6
Number of steam locomotives used outside,	40
Number of compressed air locomotives used inside,	2
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	51
Number of electric motors used outside,	4
Number of fans in use,	17
Number of furnaces in use,	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	22
Number of new mines opened,	3
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh Coal and Navigation Company,	1,053,325
Estate A. S. Van Wickle,	310,861
Coxe Brothers and Company, Incorporated,	279,222
Evans Colliery Company,	11,942
W. R. McCready,	10,799
Moses Neyer,	5,555
Total,	4,671,704

Production by Counties

Carbon,	2,957,574
Schuylkill,	1,714,130
Total,	4,671,704

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Lehigh Coal and Navigation Co.,	22	7	29	23	2	25	184,242	176,232	4,934	2,520	7,454	224	360	214	1,260
Estate A. S. Van Wickle,	2	-------	2	7	4	11	155,431	44,409	417	260	677	208	-------	60	65
Coxe Brothers and Co., Inc.,	1	-------	1	5	1	4	279,222	93,074	233	158	391	233	-------	77	158
Evans Colliery Co.,	1	-------	1	-------	-------	-------	11,942	-------	35	46	81	35	-------	-------	-------
Miscellaneous Companies,	-------	-------	-------	-------	-------	-------	-------	-------	24	20	44	-------	-------	-------	-------
Totals and averages for district,	26	7	33	33	7	40	179,681	141,567	5,643	3,004	8,647	217	429	171	429

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,				2		2							4	15.39
Falls of slate,								1					1	3.85
Falls of roof,									1	1			2	7.70
Mine cars,					4	1	1		1		1		8	30.77
Explosions of gas,					2	1					1		4	15.39
Blasts, premature and otherwise,		1											1	3.85
Falling into shafts,	1												1	3.85
Crushed at batteries,									1				1	3.84
Timber fell on him,											1		1	3.84
Struck by coal,								1					1	3.84
By falling,										1			1	3.84
Strained by pushing car,	1												1	3.84
Totals,	2	1		2	6	4	1	2	3	2	3		26	100.00
Causes of Accidents Outside														
Cars,		1			2								3	42.86
Machinery,									1	1			2	28.58
Suffocation in chutes, etc.,												1	1	14.28
Fell off car,									1				1	14.28
Totals,		1			2				2	1		1	7	100.00
Grand totals inside and outside,	2	2		2	8	4	1	2	5	3	3	1	33	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,		1		1								1	3	9.37
Falls of slate,		1											1	3.12
Falls of roof,											1		1	3.12
Mine cars,				2				1				1	4	12.50
Explosions of gas,	2				1	2	1			5			11	34.37
Explosions of powder and dynamite,									1	2			3	9.37
Blasts, premature and otherwise,			1					1					2	6.25
Falling into shafts,									1				1	3.12
Crushed at batteries,											1		1	3.13
Mules,	1												1	3.13
Struck by piece of rock,									1				1	3.13
Timber fell on him,			1										1	3.13
Struck by piece of coal,								1					1	3.13
By falling,		1											1	3.13
Totals,	3	3	2	3	1	2	1	3	3	7	2	2	32	100.00
Causes of Accidents Outside														
Cars,					1	1		1					3	37.50
Machinery,								1		1			2	25.00
Scalded by steam,								2					2	25.00
By falling,								1					1	12.50
Totals,					1	1		5		1			8	100.00
Grand totals inside and outside,	3	3	2	3	2	3	1	8	3	8	2	2	40	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	1	----	1	4	3	----	2	----	----	1	----	12
Miners' laborers,	2	----	----	1	1	----	----	----	----	2	----	----	6
Drivers and runners,	----	----	----	----	1	----	----	----	----	----	1	----	2
Doorboys and helpers,	----	----	----	----	----	----	1	----	----	----	1	----	2
Battery-men,	----	----	----	----	----	----	----	----	1	----	----	----	1
Loaders,	----	----	----	----	----	1	----	----	1	----	----	----	2
Pole-boys,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	2	1	----	2	6	4	1	2	3	2	3	----	26
Outside													
Foremen,	----	----	----	----	----	----	----	----	----	----	----	1	1
Blacksmiths and carpenters,	----	----	----	----	----	----	----	----	1	----	----	----	1
Slatepickers (boys),	----	----	----	----	1	----	----	----	----	----	----	----	1
Slatepickers (men),	----	1	----	----	1	----							
Machinists,	----	----	----	----	----	----	----	----	----	1	----	----	1
Laborers,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	----	1	----	----	2	----	----	----	2	1	----	1	7
Grand totals inside and outside,	2	2	----	2	8	4	1	2	5	3	3	1	33

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,	----	----	----	----	----	----	----	1	----	----	----	----	1
Miners,	2	2	2	1	1	1	1	2	2	5	----	2	21
Miners' laborers,	----	1	----	----	----	1	----	----	1	2	----	----	5
Drivers and runners,	1	----	----	1	----	----	----	----	----	----	----	----	2
Loaders,	----	----	----	----	----	----	----	----	----	----	1	----	1
Mucker bosses,	----	----	----	----	----	----	----	----	----	----	1	----	1
Pole-boys,	----	----	----	1	----	----	----	----	----	----	----	----	1
Totals,	3	3	2	3	1	2	1	3	3	7	2	2	32
Outside													
Engineers and firemen,	----	----	----	----	----	----	----	2	----	----	----	----	2
Slatepickers (men),	----	----	----	----	----	----	----	1	----	----	----	----	1
Car-runners,	----	----	----	----	1	----	----	----	----	----	----	----	1
Topmen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Jig-runners,	----	----	----	----	----	----	----	----	----	1	----	----	1
Laborers,	----	----	----	----	----	----	----	2	----	----	----	----	2
Totals,	----	----	----	----	1	1	----	5	----	1	----	----	8
Grand totals inside and outside,	3	3	2	3	2	3	1	8	3	8	2	2	40

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	1	3	3	1	1	1	----	----	1	11
Welsh,	----	----	----	----	----	----	----	----	1	----	1	----	2
Polish,	1	1	----	----	----	----	----	1	1	----	1	----	5
Italian,	----	----	----	----	----	----	----	----	2	----	----	----	2
Slavonian,	1	1	----	1	2	1	----	----	----	2	1	----	9
Austrian,	----	----	----	----	1	----	----	----	----	1	----	----	2
Greek,	----	----	----	----	2	----	----	----	----	----	----	----	2
Totals,	2	2	----	2	8	4	1	2	5	3	3	1	33

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	3	1	----	1	1	1	1	5	----	3	----	----	16
English,	----	----	----	----	----	----	----	----	----	----	----	1	1
German,	----	----	----	----	----	----	----	----	1	----	----	----	1
Polish,	----	----	----	1	----	----	----	----	----	----	----	----	1
Hungarian,	----	1	----	----	----	----	----	----	----	----	1	----	2
Slavonian,	----	1	----	1	1	----	----	2	----	----	----	1	5
Austrian,	----	----	----	----	----	2	----	----	----	----	----	----	2
Greek,	----	----	----	----	----	----	----	1	----	----	----	----	1
Tyrolean,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	3	3	2	3	2	3	1	8	3	3	2	2	40

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh Coal and Navigation Co.															
Nesquehoning Colliery:															
Number 1,	Tunnel,	Gaseous,	Fans,	24	8	6.0	72	.8			19	143,560	63,961	*105,800	314
Number 2,	Shaft,			21	7	6.5	63	2.0			12	122,460	76,155	179,805	241
Number 3,	Slope,			16	8	4.0	100	.7	Guibal,	Steam,	3	24,500	2,200	30,000	74
Number 1,	Drift,	Non-gas.,	Natural,								1	3,400	4,200	6,000	32
Number 2,	Tunnel,	Non-gas.,	Natural,								1	3,000	3,200	3,600	8
Lansford Colliery:															
Number 4,	Shaft,	Gaseous,	Fans,	24	8	7.0	90	1.8	Co. make	Steam,	2	29,172	29,290	30,000	69
Number 4,	Slope,										4	90,000	95,083	95,083	280
Number 5,	Shaft,			21	7	6.5	50	.8	Guibal,	Steam,	9	69,060	78,248	78,248	191
Number 6,	Shaft,			24	8	6.0	97	1.4	Guibal,	Steam,	3	51,600	53,500	53,805	256
Coaldale Colliery:															
Number 8,	Shaft,	Gaseous,	Fan,	24	8	6.0	70	1.9	Guibal,	Steam,	4	72,506	62,849	85,538	203
Number 8,	Slope,		Natural,									†			
Number 8,	Tunnel,		Natural,									†			
Number 9,	Shaft,		Fan,	24	8	6.0	80	1.5	Guibal,	Steam,	8	79,593	66,846	*77,651	282

NOTE.—Nineteen non-gaseous mines in which principal work done is robbing. No air measurements taken.
*A portion of the air escapes to the surface through old workings.
†Impossible to get correct measurements; work done is robbing and re-robbing.

Greenwood Colliery:																
Number 10,	Shaft,	Gaseous,	Fan,	24	8	6.0	80	1.8	Guibal,	Steam,	4	48,290	41,920	50,000	286
Number 10,	Slope,	Gaseous,	Fan,								5	41,550	48,500	62,500	273
Number 10,	Tunnel,	Gaseous,	Fan,	12	4	4.0	70	------	Guibal,	Steam,	2	6,120	8,300	10,040	
Rahn Colliery:																
Number 11,	Shaft,	Gaseous,	Fan,	24	8	6.0	75	1.3	Guibal,	Steam,	6	141,000	133,800	172,500	314
Fosters,	Tunnel,	Gaseous,	Fan,	21	7	5.3	44	.8	Guibal,	Steam,	7	64,400	68,940	65,360	121
Tamaqua Colliery:																
Number 14,	Shaft,	Gaseous,	Fan,	12	4	4.0	100	.7	Sturte-	Steam,	13	90,850	82,740	91,660	353
	Shaft,	Gaseous,	Fan,	20	7	5.3	75	1.2	vant,						
Estate A. S. [illegible]																
Coleraine Colliery:																
Buck Mountain,	Slope,	Gaseous,	Fan,	16	4	5.0	85	------	Guibal,	Steam,	5	56,410	51,170	60,800	160
Coxe Bros. and Co., Inc.																
Beaver Meadow Colliery:																
Number 2,	Slope,	Non-gas.,	Fan,	20	6	5.6	90	.7	Guibal,	Steam,	1	19,560	16,480	27,360	39
Number 4,	Slope,	Non-gas.,	Fan,	12	5	5.6	110	.40	Guibal,	Steam,	3	40,570	18,460	93,760	89

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh Coal and Navigation Co.						
Nesquehoning,	Carbon,					
Lansford,	Carbon,					
Coaldale,	Schuylkill, Carbon,					
Greenwood,	Schuylkill,					
Rahn,	Schuylkill,	Baird Snyder, Jr.,	Lansford,	W. G. Whildin, Inside Supt. S. V. Tench, Outside Supt.	Lansford,	C. R. R. of N. J.
Tamaqua,	Schuylkill,					
Greenwood Washery,	Schuylkill,					
Coaldale Washery,	Schuylkill,					
Hauto Washery,	Carbon,					
Estate A. S. Van Wickle						
Coleraine,	Carbon,	John Harvey,	Hazleton,			L. V., P. and R. and C. R. R. of N. J.
Coxe Brothers and Co., Inc.						
Beaver Meadow,	Carbon,	F. M. Chase,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley
Evans Colliery Co.						
Evans,	Carbon,	W. E. Smith,	Hazleton,	Charles Bidleman,	Hazleton,	Lehigh Valley
W. R. McCready						
Summit Hill,	Carbon,	W. R. McCready,	Summit Hill,			Panther Valley
Moses Neyer						
Black Rock,	Carbon,	Moses Neyer,	Summit Hill,	Elmer Neyer,	Summit Hill,	None

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Lehigh Coal and Navigation Co.													
Nesquehoning,	Carbon,	779,347	69,784	4,880	854,011	284	1,475	4	10	.....	437,024	.....	40
Lansford,	Carbon,	756,879	152,847	53,371	963,097	282	1,880	11	8	.....	310,282	.....	.....
Coaldale,	Schuylkill, Carbon,	809,548	13,450	10,045	833,043	286	1,480	4	3	.....	347,797	.....	79
Greenwood,	Schuylkill,	427,279	33,899	11,698	472,876	277	922	2	1	.....	168,850	.....	42
Rahn,	Schuylkill,	293,467	67,608	39,501	400,576	280	701	4	1	.....	117,965	.....	66
Tamaqua,	Schuylkill,	224,918	38,936	1,348	265,202	239	647	4	2	.....	138,617	.....	15
		3,291,438	376,524	120,843	3,788,805	.....	7,105	29	25	.....	1,520,535	.....	242
Washeries:													
Greenwood,	Schuylkill,	18,087	5,803	316	24,206	325	81	.....	.....	.....	.....	.....	.....
Coaldale,	Schuylkill,	72,999	28,737	3,340	105,076	75	122	.....	.....	.....	12,025	.....	2
Hauto,	Carbon,	95,923	27,118	12,197	135,238	261	146	.....	.....	.....	437	.....	.....
		187,009	61,658	15,853	264,520	.....	349	.....	.....	.....	12,462	.....	2
Totals,		3,478,447	438,182	136,696	4,053,325	.....	7,454	29	25	.....	1,532,997	.....	244
Estate A. S. Van Wickle													
Coleraine,	Carbon,	248,071	59,009	3,781	310,861	304	677	2	11	52,500	91,900	500	87
Coxe Brothers and Co., Inc.													
Beaver Meadow,	Carbon,	249,566	25,963	3,693	279,222	276	391	1	1	115,425	88,797	.....	36

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Evans Colliery Co.													
Evans,	Carbon,	6,942	5,000	----------	11,942	225	81	1	----	----------	13,500	----------	2
W. R. McCready													
Summit Hill,	Carbon,	1,347	960	8,492	10,799	293	34	----	----	----------	7,200	----------	3
Moses Neyer													
Black Rock,	Carbon,	----------	150	5,405	5,555	260	10	----	----	----------	150	----------	----
Grand totals,		3,984,373	529,264	158,067	4,671,704	--------	8,647	33	40	166,125	1,734,544	500	372

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Lehigh Coal and Navigation Co.,	Carbon, Schuylkill,	3	186	140	29,076	29,262	34	------	55	203	38,571	23	47,243	11,314	8	14
Estate A. S. Van Wickle,		------	------	18	2,150	2,150	6	------	------	36	1,340	7	7,347	1,466	------	1
Coxe Brothers and Co., Inc.,		------	------	8	2,000	2,000	6	2	------	21	1,800	1	1,200	1,100	1	2
Evans Colliery Co.,	Carbon,	2	700	------	------	700	------	------	------	6	325	3	2,000	1,000	------	------
W. R. McCready,		1	125	1	125	250	------	------	------	------	------	------	------	------	------	------
Moses Neyer,		------	------	1	35	35	------	------	------	2	30	------	------	------	------	------
Totals,		6	1,011	168	33,386	34,397	46	2	55	268	42,066	34	57,790	11,880	9	17

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside												Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside		Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Lehigh Coal and Navigation Co.,	Carbon, Schuylkill,	15	21	53	1,673	671	173	68	10	1,050	1,209	4,934		22	152	225	173	111	32	1,805	2,520	7,454	
Estate A. S. Van Wickle,	Carbon,	4	1	3	177	143	33	2	6	48	.....	417	1	2	16	31	28	7	8	167	260	677	
Coxe Brothers and Co., Inc.,		1	3	----	116	25	14	2	1	6	65	233	----	1	10	16	17	21	4	89	158	391	
Evans Colliery Co.,		1	----	----	11	11	1	-----	1	10	-----	35	1	1	3	5	14	----	2	20	46	81	
W. R. McCready,		1	----	----	5	9	2	-----	1	-----	-----	18	1	1	----	1	6	----	1	6	16	34	
Moses Neyer,		----	----	----	3	3	-----	-----	-----	-----	-----	6	1	----	----	1	----	----	----	2	4	10	
Totals,		22	25	56	1,985	862	223	72	19	1,114	1,265	5,643	4	27	181	279	238	139	47	2,089	3,004	8,647	

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Lehigh Coal and Navigation Co.,	Carbon,	22	18	22	23	25	24	20	21	23	24	21	25	274
Estate A. S. Van Wickle,	Schuylkill,	25	24	27	24	26	26	25	27	25	25	25	25	304
Coxe Brothers and Co., Inc.,		24	20	23	23	26	25	18	19	24	25	24	25	276
Evans Colliery Co.,	Carbon,	23	22	25	16	17	16	17	12	14	22	20	21	225
W. R. McCready,		25	22	25	23	22	25	25	27	24	25	25	25	293
Moses Neyer,		21	20	21	21	22	23	22	21	22	23	22	22	260

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 24	John Krutsick,	Polish,	Laborer,	49	M.	1	3	Lansford,	Carbon,	Instantly killed by falling into shaft.
30	Paul Dulick,	Slavonian,	Laborer,	33	S.			Rahn,	Schuylkill,	Fatally injured while pushing car on cage at bottom of shaft. Died February 6 from internal strains.
Feb. 1	Martin Stemko,	Polish,	Miner,	45	M.	1	6	Beaver Meadow,	Carbon,	Instantly killed in breast 20 feet from face by a shot that was fired in breast next to him and came through his pillar.
3	George Halusko,	Slavonian,	Slatepicker,	55	M.	1		Coaldale,	Schuylkill,	Fatally injured by falling under motor. Died February 4. Outside.
April 6	Thomas Hupka,	Slavonian,	Laborer,	33	M.	1	3	Coleraine,	Carbon,	Instantly killed by a portion of top bench of coal falling on them near face of coal pillar.
	Cormick McGarvey,	American,	Miner,	58	M.	1	5			Fatally injured. Died April 8.
May 11	Wash Prebola,	Greek,	Miner,	40	M.	1	2	Lansford,	Carbon,	Killed by being crushed by cars. They were standing near west end of No. 90 turnout waiting for a loaded trip to pass out when two cars of the empty trip became uncoupled and ran back into loaded trip and fell over on the men.
	Thomas Polinsky,	Greek,	Miner,	30	M.	1				
	Simon Finaloski,	Austrian,	Laborer,	45	M.	1	4			
	Paul Yocobecht,	Slavonian,	Slatepicker,	36	M.	1	3	Tamaqua,	Schuylkill,	Killed by cars at overcoal pocket. A couple of loaded gondola cars came in contact with car they were unloading, knocking them down with such force that they fell through the car onto the track and were run over.
	Conrad Bechart,	American,	Slatepicker,	16	S.					
15	William Slevitsky,	Slavonian,	Miner,	26	S.			Rahn,	Schuylkill,	Fatally injured by explosion of gas in crosscut. He passed danger signal with open light. Died May 28.

May	18	Thomas Sadusky,	American,	Driver,	18	S.			Tamaqua,	Schuylkill,	Killed by having his head crushed between loaded car and roof of tunnel. He was riding on the bumper on the bottom side.
	27	Oliver Kemmerer,	American,	Miner,	47	M.	1		Rahn,	Schuylkill,	Fatally injured by explosion of gas at face of breast in Fosters tunnel. Died June 6.
June	7	Wilford Miller,	American,	Miner,	21	S.			Coaldale,	Schuylkill,	Killed by fall of coal at face of breast while making room for a length of manway, No. 8 shaft.
	14	Mike Pavlick,	Slavonian,	Loader,	24	M.	1	2	Greenwood,	Schuylkill,	Fatally injured by being run over by loaded car on gangway in No. 10 shaft. Died the same day.
	22	John Wheldon,	American,	Miner,	49	M.	1	1	Coaldale,	Schuylkill,	Suffocated by fall of coal at face of chute in gangway, No. 9 shaft.
		Elmer Watkins,	American,	Miner,	27	M.	1	1	Lansford,	Carbon,	Killed by explosion of gas in chute in gangway at No. 5 shaft.
July	14	Benjamin Black,	American,	Doorboy,	17	S.			Rahn,	Schuylkill,	Fatally injured by being caught between car and gangway rib at Fosters tunnel. Died the same day.
Aug.	17	Harry Benninghoff,	American,	Miner,	27	M.	1	2	Lansford,	Carbon,	Killed by coal coming down the slope from a car that upset on the transport.
	21	Wazil Baron,	Polish,	Miner,	30	M.	1	4	Evans,	Carbon,	Fatally injured by fall of slate at face of breast. He failed to remove the loose top slate after firing shot. Died the same day.
Sept.	5	Floyd Henninger,	American,	Poleboy,	17	S.			Lansford,	Carbon,	Instantly killed by being run over by motor in gangway. No. 5 shaft.
	7	Nicola Cerite,	Italian,	Laborer,	36	M.	1	2	Tamaqua,	Schuylkill,	Fatally injured by being knocked off dump car by an overhead steam pipe. Died the same day. Outside.
	12	Joseph Olexkey,	Polish,	Batteryman,	22	S.			Lansford,	Carbon,	Smothered at battery by rush of coal. No. 5 shaft.
	14	Daniel Jenkins,	Welsh,	Loader,	19	S.			Coaldale,	Carbon,	Killed by fall of roof in chute near gangway, in Springdale tunnel.
	29	James Cosear,	Italian,	Carpenter,	36	M.	1	4	Nesquehoning,	Carbon,	Fatally injured by machinery while attempting to start the feeder at headhouse. Died September 11. Outside.
Oct.	12	Frank Mesenick,	Slavonian,	Laborer,	22	S.			Nesquehoning,	Carbon,	Killed by fall of rock at face of gangway, No. 1 tunnel.
	16	Joseph Belenskie,	Austrian,	Laborer,	26	S.			Nesquehoning,	Carbon,	Killed by falling from chute to gangway, No. 1 tunnel.
	27	Joseph Bednar,	Slavonian,	Machinist,	27	M.	1	1	Lansford,	Carbon,	Fatally injured by sheave wheel falling on him while removing the shaft, No. 6 dirt plane. Died December 21. Outside.
Nov.	14	August Martinkus	Slavonian,	Machine helper,	29	M.	1	1	Nesquehoning,	Carbon,	Killed by gangway collar falling on him. The collar was knocked down by a falling rock.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 16	Thomas Gocheck, ----	Polish, ----	Driver, ------	18	S.	----	----	Lansford, --------	Carbon,--------	Killed by being caught between car and gangway rib, No. 4 water level.
29	William Jones, -------	Welsh, -----	Miner, -------	28	S.	----	----	Greenwood, ------	Schuylkill, -----	Instantly killed by explosion of gas in breast, No. 10 shaft. It is supposed that he ignited the gas while firing a hole.
Dec. 13	James T. Duncan, ---	American,--	Bank foreman	27	S.	----	----	Lansford, --------	Carbon,--------	Smothered in rush of culm at No. 6 banks. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	William Maurer,	American,	Miner,	49	M.	Nesquehoning,	Carbon,	Hands and face burned by explosion of gas at face of breast.
	Thomas Maurer,	American,	Miner,	27	M.			
10	James Mitchell,	American,	Driver,	23	S.	Coleraine,	Carbon,	Collar bone broken by being squeezed between mule and car on gangway.
Feb. 7	Harry Rosko,	Slavonian,	Laborer,	21	M.	Lansford,	Carbon,	Body lacerated by falling on a sprag in gangway.
17	Dock Henry,	American,	Miner,	30	S.	Coleraine,	Carbon,	Left femur fractured by fall of clod at face of gangway.
18	Andrew Woitko,	Hungarian,	Miner,	27	M.	Beaver Meadow,	Carbon,	Back and hips bruised by fall of coal at face of breast.
March 7	John Turick,	Slavonian,	Miner,	31	M.	Coleraine,	Carbon,	Face lacerated and eyes injured by premature blast.
11	Andro Coleman,	Slavonian,	Miner,	53	M.	Coleraine,	Carbon,	Leg broken by a stick of timber falling on it.
April 3	Michael Swarts,	Slavonian,	Driver,	23	S.	Coleraine,	Carbon,	Pelvis fractured by being caught between car and gangway leg.
14	Edward Lawson,	Polish,	Poleboy,	18	S.	Tamaqua,	Schuylkill,	Leg fractured by being caught between loaded car and motor on gangway.
20	Joseph Kennedy,	American,	Miner,	34	S.	Nesquehoning,	Carbon,	Two fingers smashed by fall of coal in manway.
May 15	Joseph Boycofsky,	Slavonian,	Miner,	39	M.	Rahn,	Schuylkill,	Hands and face burned by explosion of gas.
18	Albert Wersinger,	American,	Car-runner,	17	S.	Coleraine,	Carbon,	Ribs broken and body bruised by jumping off car while it was in motion. Outside.
June 22	John Leno,	Austrian,	Miner,	32	M.	Lansford,	Carbon,	Hands and face burned by explosion of gas in chute.
	John Domasavage,	Austrian,	Laborer,	35	M.			
26	John Watra,	American,	Topman,	20	S.	Beaver Meadow,	Carbon,	Leg fractured by car passing over it Outside.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
July 15	James Gallagher,	American,	Miner,	40	M.	Coaldale,	Schuylkill,	Hands, face and body burned by explosion of gas in chute.
Aug. 7	Edward Boyle,	American,	Miner,	35	M.	Greenwood	Schuylkill,	Hands and face lacerated by premature blast.
15	John Botskorus,	Slavonian,	Laborer,	50	M.	Coleraine,	Carbon,	Hip dislocated by falling while unloading props. Outside.
	Paul Hodock,	Slavonian,	Laborer,	40	S.	Tamaqua,	Schuylkill,	Head and body lacerated by falling from car while it was in motion. Outside.
17	George Aiken,	American,	Fireboss,	57	M.	Lansford,	Carbon,	Head cut and ribs fractured by coal falling down slope on him.
18	Michael North,	American,	Engineer,	68	M.	Coleraine,	Carbon,	Scalded by a leaking steam pipe. Outside.
	Thomas Corrigan,	American,	Engineer,	54	M.			
22	Joseph Bottner,	American,	Miner,	36	S.	Beaver Meadow,	Carbon,	Left foot crushed between barney and barney pit.
24	Mike O'Milon,	Greek,	Slatepicker,	23	S.	Lansford,	Carbon,	Arms broken and hip lacerated by falling on scraper line. Outside.
Sept. 1	Steve Lasko,	Slavonian,	Laborer,	19	S.	Coaldale,	Carbon,	Skull fractured by falling off cage into shaft.
15	Jacob Snyder,	German,	Miner,	42	M.	Nesquehoning,	Carbon,	Right hand, three fingers of left hand, and sight of both eyes destroyed by explosion of caps in gangway.
25	Lucas Moneta,	Slavonian,	Miner,	40	M.	Coaldale,	Schuylkill,	Skull fractured by being struck by a piece of rock that fell down the chute.
Oct. 9	Mich. Regan,	Slavonian,	Miner,	36	M.	Beaver Meadow,	Carbon,	Hands shattered by explosion of a blasting cap.
12	Ben Fisher,	American,	Miner,	30	M.	Nesquehoning,	Carbon,	Face lacerated and eye injured by explosion of powder.
16	Michael Mulligan,	American,	Miner,	39	M.	Nesquehoning,	Carbon,	Hands and face burned by explosion of gas.
	Andrew Lechock,	Slavonian,	Miner,	33	M.	Lansford,	Carbon,	Hands and face burned by explosion of gas.
	Steve Matula,	Slavonian,	Laborer,	38	M.			

Oct.	25	Frank Matricion,	Slavonian,	Miner,	26	S.	Nesquehoning,	Carbon,	Hands, body and face burned by explosion of gas.
		Mich. Matricion,	Slavonian,	Laborer,	24	M.			Hands and face burned by explosion of gas.
	26	Joseph Mitchell,	American,	Jig-runner,	16	S.	Coleraine,	Carbon,	Arm fractured and hip dislocated by pulley belt. Outside.
Nov.	16	George Demicola,	Tyrolean,	Muckerboss,	32	M.	Nesquehoning,	Carbon,	Back injured by being struck by a piece of rock that fell in face of tunnel.
		Wash Bargata,	Hungarian,	Loader,	22	S.	Lansford,	Carbon,	Leg fractured and body injured by being caught by rock at battery.
Dec.	11	Richard Johns,	English,	Miner,	42	M.	Nesquehoning,	Carbon,	Head lacerated by being caught between car and gangway timber.
	13	John Kraynock,	Slavonian,	Miner,	36	M.	Coleraine,	Carbon,	Head and back bruised by fall of coal, due to forepoles breaking down at face of chute.

CONDITION OF COLLIERIES

LEHIGH COAL AND NAVIGATION COMPANY

Nesquehoning.—Ventilation generally good; drainage, roads and condition as to safety, good.

Lansford and Greenwood.—Ventilation good, with a few exceptions; roads, drainage and condition as to safety, good.

Coaldale and Tamaqua.—Ventilation, roads, drainage and general condition as to safety, good.

Rahn.—Ventilation, roads and drainage fair; general condition as to safety, good.

Greenwood, Coaldale and Hauto Washeries.—In good condition.

ESTATE A. S. VAN WICKLE

Coleraine.—Ventilation, roads, drainage and general condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Beaver Meadow.—Ventilation, drainage, roads and general condition as to safety, good.

EVANS COLLIERY COMPANY

Evans.—Inside operations have been suspended indefinitely.

W. R. McCREADY

Summit Hill.—General conditions good. Will be completely robbed out in about two months.

MOSES NEYER

Black Rock.—Ventilation, drainage and roads good.

IMPROVEMENTS

LEHIGH COAL AND NAVIGATION COMPANY

Nesquehoning Colliery.—Outside: Remodeling head-house. Installed new wash water pump. Installed new jig engine and house. Erected additional 500 horse power battery of Stirling boilers.

No. 1 Tunnel.—Tunnel in Central basin driven north 159 feet from East Seven Foot to Mammoth. Mouth of No. 1 Buck Mountain drift changed 43 feet west, making underground crossing with public road.

No. 1 Shaft.—Tunnel from East Seven Foot 86 feet north toward Mammoth, Middle basin. North dip, tunnel from East Mammoth toward Seven Foot south 42 feet, Centre basin. North dip, main south tunnel driven 286 feet to Buck Mountain, South basin.

No. 2 Shaft.—Tunnel from Mammoth, North basin South dip, to Skidmore vein 45 feet.

Lausanne Drainage Tunnel.—2,150 feet of gangway and 1,560 feet of tunnel driven on No. 2 shaft end, a total of 3,710 feet; 4,948 feet of gangway and 379 feet of tunnel driven on Mauch Chunk end, a total of 5,327 feet, making a total of 9,037 feet driven for the year on both ends. The tunnel had been driven a total distance of 18,196 feet on January 1.

Lansford Colliery.—Outside: Installed one additional slush pump. Erected wash-house for use of employes. Installed new Cochran feed-water heater and erected house. Erected fence around the colliery grounds. Concreted top of No. 6 shaft. Installed ventilators in No. 4 and No. 6 boiler houses. Erected head-house at No. 6 dirt bank to remove large refuse and rock from dirt bank material that is loaded for shipment to Greenwood and Coaldale Washeries, thus aiding the washeries greatly in preparing the coal.

No. 4 Slope.—Inside: Empty car tunnel, 5th level, driven 148 feet to completion, total length 495 feet. Tunnel driven south 37 feet from West Mammoth, North dip, 5th level, to Skidmore vein. Tunnel driven from the East Mammoth, North dip, 5th level, 496 feet north to South dip of Mammoth and continued 107 feet into vein. Air tunnel driven 212 feet north from East Mammoth airway, 5th level. A hospital 18 by 18 feet, was made in west rib of No. 4 shaft main tunnel in rock.

No. 5 Shaft.—Tunnel driven north 31 feet from East Skidmore to Bottom Split of Mammoth, 2nd level.

Coaldale Colliery.—Outside: Installed ventilators in No. 8 boiler house. Erected wash-house at No. 9 tunnel for use of miners. Erected new fence around colliery grounds. Completed removal of old No. 9 breaker. Completed new 8-inch steam line from No. 8 boiler house to Mountain fan and hoisting engines. Installed jig engine and 14 additional jigs.

No. 8 Shaft.—Drilling bore hole from surface, where hoisting engines will be located to develop new level, to be known as the 7th. One concrete hospital erected on water-level and one on shaft-level.

No. 9 Shaft.—Empty car tunnel on 3rd level driven 195 feet to completion. In the Springdale workings a tunnel was driven south, at a point 500 feet west of Springdale tunnel, 307 feet toward the Bottom Split of the Mammoth vein.

Slushing was continued at the Summit Hill fire along the outcrop of the vein on North dip to prevent fire spreading westward along that crop.

Greenwood Colliery.—Outside: Erected fence around colliery grounds. Inside No. 3 tunnel, slope level, extended 82 feet south. No. 1 tunnel, slope level, extended 173 feet to Primrose vein.

Rahn Colliery.—Outside: Erected wash-house for convenience of inside men. Erected fence around colliery grounds. Erected addition on west side of breaker and installed additional jigging machinery.

Tamaqua Colliery.—Outside: Erected new wash-house for use of inside men. Installed additional air compressor. Completed erection of 24 foot fan on Sharpe Mountain. Erected fence around colliery grounds. Inside: North tunnel, 2nd level. Tunnel driven 83 feet from East Skidmore to East Top Split, total distance driven 215 feet. 81 feet of tunnel driven from West Skidmore to Top Split, total distance driven 170 feet. Main South tunnel was extended 202 feet, total distance 4,319 feet. South air tunnel driven 240 feet. Air tunnel driven 60 feet from No. 1 East Orchard air course to No. 2 East Orchard. Near face of No. 2 West Orchard tunnel driven 60 feet north to vein struck by diamond drill hole from Primrose South tunnel. Traces of the Old Greenwood fire were discovered on May 25, 1911. The old drift was immediately reopened for 1,875 feet, a

slope sunk 110 feet on crop of Top Split vein, South dip, proving gangways and chutes driven, and a second opening driven up to surface from East gangway. No evidence of fire could be discovered and operations were resumed in this section October 3, 1911.

Greenwood Washery.—New dirt-bank material hopper built and conveyor lines renewed, also general repairs to the breaker structure and machinery.

Hauto Washery.—A 500 horse power battery of Stirling boilers was removed from Coaldale Washery and erected at this plant.

A new colliery to be known as Summit Colliery is in course of development at a point about midway between Lansford and Nesquehoning Collieries. The main water-level tunnel has been started and preparations are now under way to commence sinking two shafts. During the year a Mine Rescue car was fitted up in good condition with the Draeger Oxygen Apparatus and proper first-aid material, and is kept in readiness for prompt movement to any of the collieries in case of necessity. Too much praise cannot be given the First Aid Corps of this company for the interest they take in their humane work, particularly with the Corps of Nos. 4 and 8 Shafts and No. 8 Water level, who contributed their time and money to bring their medical rooms to such a state of perfection as to be second to none in the Anthracite coal region.

ESTATE A. S. VAN WICKLE

Coleraine Colliery.—Wheelbarrow basin: Sunk an inside slope 12 feet by 7 feet by 150 feet long, angle 23 degrees, from the West gangway, Buck Mountain vein, to the basin. Drove a tunnel 87 feet long through a fault at the bottom of the slope. Made a pump house and installed a pump with all necessary steam and water pipes. Drove a rock tunnel from the same gangway to the Gamma vein, 177 feet long, and made a new stable all in rock to accommodate 10 mules.

In Wheelbarrow basin, Wharton vein, sunk a new slope 7 feet by 12 feet by 200 feet long, angle 21 degrees.

No. 7 Buck Mountain Slope.—Drove a tunnel through a fault in the East 4th level gangway, distance 150 feet.

Drove a tunnel from the West 4th level gangway south to the Gamma vein, a distance of 108 feet.

No. 7 Gamma Slope.—Sunk the slope down another lift, distance 172 feet, angle 27 degrees. Drove a tunnel from the bottom of this slope to the Buck Mountain vein, distance 60 feet.

Flory Slope.—Sunk an inside slope to the basin of the underlap in the Mammoth vein, distance 88 feet, angle 27 degrees.

No. 2 Old Mammoth Slope.—Sunk a slope South to the basin of the underlap, distance 164 feet, angle 11 degrees.

Sinking a slope 12 feet by 7 feet clear of rail from the Mammoth to Wharton vein, sunk 173 feet in coal, angle 18 degrees, and 253 feet in rock, angle 25 degrees; present depth of slope 425 feet.

No. 2 Stripping.—Sunk a slope to mine the coal left in the Old Carter workings, distance 105 feet, angle 20 degrees.

Made connections from the Old No. 1 Wharton slope through the Carter tunnel to the Buck Mountain slope, making new bottom and hoisting the No. 1 Wharton coal through the Buck Mountain slope. Abandoned all hoisting of coal through No. 1 slope.

No. 9 Slope was abandoned June 5; exhausted.

COXE BROTHERS AND COMPANY, INCORPORATED

Beaver Meadow Colliery.—The main drainage tunnel mentioned in last year's report was extended across the Big Vein basin for 180 feet and is being continued now square to the measures in Northern direction to develop the underlying veins, which have been tested by diamond drill holes. The Wharton territory has been explored and opened by a gangway to the North, which has advanced 800 feet beyond the face of the old workings. The coal is now moved by a complicated system of counters and back-switches, but since the extent of the basin to the North has been satisfactorily proved, a rock slope will be sunk to tap this section direct.

The strippings have been extended on the continuation of the No. 8 basin, 40,398 yards having been excavated, and in the Greenfield basin 75,446 yards were moved by the contractor, bringing the total excavation in these strippings to 1,191,012 cubic yards by January 1, 1912.

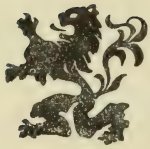
At Beaver Meadow Slope No. 4 the gangway work in Buck Mountain and Gamma veins advanced steadily and proved the usual irregularities of the three splits of the Buck Mountain vein.

Two modern fireproof hospitals were constructed, one in No. 4 slope and the other in No. 2 slope.

EVANS COLLIERY COMPANY

Evans Colliery.—Installed one set of Stirling boilers 350 horse power, two Hazleton jigs, and a new State line.

Evans No. 2.—Gamma slope has been abandoned temporarily.



EIGHTEENTH DISTRICT

SCHUYLKILL COUNTY

Pottsville, Pa., February 27, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Eighteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
JOHN CURRAN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	43
Number of mines in operation,	43
Number of tons of coal shipped to market,	2,453,403
Number of tons used at mines for steam and heat,	375,365
Number of tons sold to local trade and used by employes,	37,299
Number of tons produced,	2,866,067
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,617
Number of persons employed outside,	2,261
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	65
Number of non-fatal accidents outside,	19
Number of tons of coal produced per fatal accident inside,	143,303
Number of persons employed per fatal accident inside,	231
Number of persons employed per fatal accident outside,	452
Number of persons employed per non-fatal accident inside,	71
Number of persons employed per non-fatal accident outside,	119
Number of wives made widows,	19
Number of children made orphans,	55
Number of steam locomotives used inside of mines,	3
Number of steam locomotives used outside,	35
Number of compressed air locomotives used inside,	8
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	7
Number of electric motors used outside,	.....
Number of fans in use,	32
Number of furnaces in use,	.....
Number of gaseous mines in operation,	23
Number of non-gaseous mines in operation,	20
Number of new mines opened,	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh and Wilkes-Barre Coal Company,	702,680
Philadelphia and Reading Coal and Iron Company,	651,790
Coxe Brothers and Company, Incorporated,	286,732
Lehigh Valley Coal Company,	264,131
Maryd Coal Company,	245,126
Dodson Coal Company,	242,262
Alliance Coal Company,	156,763
Mill Creek Coal Company,	136,833
East Lehigh Coal Company,	58,664
Phillips Brothers Coal Company,	44,382
Port Carbon Coal Company,	30,702
Gorman and Campion,	23,493
Schuylkill Lehigh Coal Company,	17,233
William Cooke Estate,	5,256
Total,	2,866,067

Production by Counties

Schuylkill,	2,866,067

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Lehigh and Wilkes-Barre Coal Co.,	6	2	8	11	8	19	117,113	63,889	1,090	523	1,613	181	261	99	65
Philadelphia and Reading Coal and Iron Co.,	3		3	11	4	15	217,263	59,253	1,167	498	1,665	389		106	124
Coxe Brothers and Co., Inc.,	3		3	8	1	9	95,577	35,841	385	120	505	128		48	120
Lehigh Valley Coal Co.,		1	1	9	3	12		29,350	414	288	702		288	46	96
Maryd Coal Co.,	2		2	8		8	122,563	36,040	322	163	485	161		40	
Dodson Coal Co.,				2	1	3		121,131	397	220	617			198	220
Alliance Coal Co.,	2		2	7	1	8	78,381	22,395	446	104	550	223		64	104
Mill Creek Coal Co.,	2		2	3		3	68,416	45,611	136	118	254	68		45	
East Lehigh Coal Co.,	2	1	3	2		2	29,332	29,332	37	57	94	18	57	18	
Phillips Brothers Coal Co.,				1		1		44,382	43	42	85			43	
Gorman and Campion,		1	1						43	32	75		32		
Schuylkill Lehigh Coal Co.,				2	1	3		3,616	64	59	123			32	59
William Cooke Estate,				1		1		5,256	8	11	19			8	
Miscellaneous Companies,									65	26	91				
Totals and averages for district,	20	5	25	65	19	84	143,303	44,093	4,617	2,261	6,878	231	452	71	119

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,			1		1								2	10.00
Falls of slate,	1			1	2							1	5	25.00
Falls of roof,	1					1							2	10.00
Mine cars,		1					1			1			3	15.00
Explosions of gas,								1					1	5.00
Suffocation by gas, etc.,			1			1					1		3	15.00
Blasts, premature and otherwise,		1										1	2	10.00
Falling into shafts,					1								1	5.00
Rush of coal,					1								1	5.00
Totals,	2	2	2	1	5	2	1	1		1	1	2	20	100.00
Causes of Accidents Outside														
Rock rolled on him,	1					1							2	40.00
Falling,										1	1		2	40.00
Rush of culm,										1			1	20.00
Totals,	1					1				2	1		5	100.00
Grand totals inside and outside,	3	2	2	1	5	3	1	1		3	2	2	25	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,			1		1	1			1	1			5	7.69
Falls of slate,		1		2		1	2				2		8	12.31
Falls of roof,	2											1	3	4.62
Mine cars,	1	2		1	2	2			2			1	11	16.92
Explosions of gas,			3		1	2		1	3		2	2	13	20.00
Explosions of powder and dynamite,	2					1			1				4	6.15
Blasts, premature and otherwise,	1		1				1					1	4	6.15
Falling into shafts,						1							1	1.54
Falling into slopes, etc.,							1				2		3	4.61
Struck by mining needle,	1												1	1.54
Struck by axe,	1												1	1.54
Rush of coal,		1											1	1.54
Struck by piece of coal,	1												1	1.54
Struck by bar,			1							1			2	3.08
Struck by car wheel,				1									1	1.54
Struck by timber,				1	1			1					3	4.61
Struck by piece of slate,					1								1	1.54
Struck by pulley,					1								1	1.54
Falling,				1									1	1.54
Totals,	9	4	6	6	7	8	4	2	6	2	6	5	65	100.00
Causes of Accidents Outside														
Cars,		1		2	1	1				1		2	8	42.11
Machinery,				1	1								2	10.53
Rush of culm,		2											2	10.53
Falling,		1				1							2	10.53
Mules,			1										1	5.26
Scalded by steam,				2									2	10.52
Struck by bursting pipe,				1									1	5.26
Injured by a jack,							1						1	5.26
Totals,		4	1	6	2	2	1						19	100.00
Grand totals inside and outside,	9	8	7	12	9	10	5	2	6	3	6	7	84	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants								1					1
Miners	2	2	1	1	4	1	1				1	2	15
Miners' laborers					1	1							2
Doorboys and helpers										1			1
Pumpmen			1										1
Totals	2	2	2	1	5	2	1	1		1	1	2	20
Outside													
Blacksmiths and carpenters											1		1
Structural iron-workers										1			1
Laborers	1					1				1			3
Totals	1					1				2	1		5
Grand totals inside and outside	3	2	2	1	5	3	1	1		3	2	2	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen					1								1
Fire bosses and assistants						1							1
Miners	8	3	5	3	4	3	3	2	4	2	5	4	46
Miners' laborers				2		2	1				1	1	7
Drivers and runners	1				1	2							4
Doorboys and helpers									1				1
Company men		1	1										2
Engineers				1									1
Bottommen					1								1
Spraggers									1				1
Totals	9	4	6	6	7	8	4	2	6	2	6	5	65
Outside													
Engineers and firemen				3									3
Laborers		2		1	2	1							6
Patchers		1		2		1				1			5
Timbermen			1										1
Footmen							1						1
Drivers												1	1
Topmen												1	1
Stablemen		1											1
Totals		4	1	6	2	2	1			1		2	19
Grand totals inside and outside	9	8	7	12	9	10	5	2	6	3	6	7	84

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	1	....	....	1	....	....	....	3	1	....	6
Irish,	....	....	....	....	....	....	....	1	....	....	....	....	1
Polish,	1	....	1	....	1	....	....	....	....	....	....	1	4
Hungarian,	1	....	....	....	1	....	....	....	....	....	....	....	2
Italian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Slavonian,	....	....	....	....	....	....	....	....	....	....	1	1	2
Lithuanian,	....	1	....	1	2	....	....	....	....	....	....	....	4
Austrian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Russian,	1	1	....	....	....	2	....	....	....	....	....	....	4
Totals,	3	2	2	1	5	3	1	1	....	3	2	2	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	3	....	7	2	5	2	1	1	....	....	1	23
Welsh,	....	....	1	....	....	....	....	....	....	1	....	....	2
Irish,	1	....	....	....	....	....	....	....	....	....	....	....	1
German,	....	....	1	....	....	....	....	....	....	....	....	....	1
Polish,	1	2	1	....	1	3	1	....	1	....	1	4	15
Hungarian,	1	....	2	....	2	....	....	....	....	....	....	....	5
Italian,	....	2	....	4	1	1	....	....	....	1	....	....	9
Slavonian,	....	1	....	....	....	1	....	....	3	....	1	2	8
Lithuanian,	3	....	1	....	2	....	2	1	....	1	3	....	13
Austrian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Russian,	1	....	1	1	....	....	....	....	1	....	....	....	4
Tyrolean,	1	....	....	....	1	....	....	....	....	....	....	....	2
Totals,	9	8	7	12	9	10	5	2	6	3	6	7	84

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh and Wilkes-Barre Coal Co.															
Audenried No. 4 Colliery:															
Audenried No. 11,	Slopes,	Gaseous,	Fan,	16	4.2	3.8	95	.8	Guibal,	Steam,	5	105,000	105,000	109,000	524
Audenried No. 16,			Fan,	12	4.0	3.6	90	.7			2	49,000	49,000	50,000	
Audenried No. 21,			Fan,	15	4.6	5.0	45	.4			2	39,000	40,000	42,000	
Honey Brook No. 5 Colliery:															
Honey Brook No. 15,	Slope,	Gaseous,	Fan,	15	4.4	4.4	75	.8	Guibal,	Steam,	4	54,300	54,300	58,000	378
Honey Brook No. 22,	Slope,	Non-gas.,	Natural,												
Honey Brook No. 20,	Slope,	Non-gas.,	Fan,	8	2.10	2.3	65	.8	Guibal,	Steam,	3	28,800	29,500	32,000	
Green Mountain,	Slope,	Non-gas.,	Fan,	15	4.2	4.6	65	.7	Guibal,	Steam,	4	46,450	47,000	48,500	
Water Level,	Tunnel,	Non-gas.,	Fan,	12	4.0	3.6	60	.5	Guibal,	Steam,	2	27,000	27,500	28,000	
No. 8 South,	Slope,	Non-gas.,	Natural,												
Philadelphia and Reading Coal and Iron Co.															
Silver Creek Colliery:															
Silver Creek,	Shaft,	Gaseous,	Fans,	21	6.0	7.0	61	.7	Guibal,	Steam,	18	200,000	200,500	200,500	418
				21	6.2	7.0	65	1.1							

Silver Creek No. 1,			Natural,												12
Silver Creek No. 2,			Natural,												15
Silver Creek No. 3,			Natural,												12
Silver Creek No. 4,	Drifts,	Non-gas.	Fan,	12	4.0	3.6	56	.2	Guibal,	Electricity,	6	71,200	70,100	71,300	98
Silver Creek No. 5,			Natural,												6
Silver Creek No. 6,			Natural,												12
Silver Creek No. 7,			Natural,												10
Eagle Hill Colliery:															
Eagle Hill No. 1,	Slope,	Gaseous,	Fan,	21	7.6	5.6	72	1.5	Guibal,	Steam,	3	27,100	25,500	35,000	102
Eagle Hill No. 2,	Shaft,	Gaseous,	Fan,	18	6.0	5.0	65	.8	Guibal,	Steam,	11	57,500	52,002	63,200	211
Eagle Hill No. 7,	Drift,	Non-gas.,	Fan,	8	3.0	3.25	85	.6		Electricity,	5	17,575	15,500	18,600	52
Diamond Vein,	Drift,	Non-gas.,	Fan,	12	4.0	3.0	70	.8		Steam,	1	3,500	3,000	4,200	10
Coxe Brothers and Co., Inc., Oneida Colliery:															
Oneida No. 1,	Shaft and Slope,	Gaseous,	Fan,	12.6	5.3	5.10	150	.7	Pelizer,		8	69,900	55,000	72,000	152
Oneida No. 3,	Shaft,	Non-gas.,	Fan,	20	6.0	6.6	65	.42	Guibal,	Steam,	4	55,800	48,000	61,900	97
Oneida No. 4,	Slope,	Gaseous,	Fan,	20	6.0	5.9	85	.50	Guibal,		5	42,000	32,700	43,800	67
Lehigh Valley Coal Co. Buck Mountain Colliery:															
Buck Mountain,	Slope,	Gaseous,	Fan,	20	6.8	6.0	70	1	Guibal,	Steam,	9	116,000	85,000	118,000	220
Vulcan Colliery:															
Vulcan,	Slope,	Gaseous,	Fan,	25	8.0	6.3	65	2	Guibal,	Steam,	13	132,000	95,000	132,000	194
Maryd Coal Co. Maryd Colliery:															
Maryd No. 1,	Shaft,	Gaseous,	3 Fans,	20.6	6.6	6.0	80	2	Guibal,	Steam,	6	144,240	135,000	144,240	272
				16	4.2	4.9	65	1.75							
				18	6.0	5.0	70	1.75							
Maryd No. 1,	Slope,	Gaseous,	Fan,	16	4.0	5.0	80	1.75	Guibal,	Steam,	1	22,420	22,000	22,420	46
Maryd No. 1,	Drift,	Gaseous,	Fan,	10	3.6	2.6	70	1	Sturtevant,	Steam,	1	10,000	8,000	10,000	4
Dodson Coal Co. Morea Colliery:															
Morea,	Slope,	Gaseous,	2 Fans,	18	6.10	6.0	80	1.	Guibal,	Steam,	10	*41,170	*43,500	136,500	395
				18	6.10	6.0	80	.9							
	Shaft,	Gaseous,	Fan,	18	6.10	6.0	80	.5							
Alliance Coal Co. Alliance Colliery:															
Alliance,	Shaft,	Gaseous,	Fan,	16	4.0	5.0	65	.6	Guibal,	Steam,	6	82,970	80,400	88,850	446

*Intake from breach holes to surface.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Mill Creek Coal Co.															
Middle Lehigh Colliery:															
Middle Lehigh No. 1, ...	Slope, ---	Gaseous,	Fan, -----	16	4.5	4.1	70	.3	Guibal, -	Steam, ----	6	82,000	33,000	90,000	110
Middle Lehigh No. 3, ...															
Middle Lehigh No. 6, ...	Slope, ---	Non-gas.,	Natural, -												5
Middle Lehigh No. 10, ...	Slope, ---	Non-gas.,	Natural, -												5
East Lehigh Coal Co.															
East Lehigh Colliery:															
East Lehigh, ...	Slope, ---	Gaseous,	Fan, -----	12	4.0	4.6	100	1.3	Guibal, -	Steam, ----	2	40,000	33,000	42,000	37
Phillips Brothers Coal Co.															
Silver Hill Colliery:															
Silver Hill, ...	Slope, ---	Gaseous,	Fan, -----	12	4.0	4.0	90	1.5	Brazilian,	Steam, ----	2	45,000	40,000	50,000	40
Port Carbon Coal Co.															
Lucy R. Colliery:															
Lucy R., ...	Drift, ----	Gaseous,	Natural, -												62

Gorman and Campion															
Bell Colliery:															
Bell No. 1,	Drift,	Non-gas.,	Natural,												43
Schuylkill Lehigh Coal Co.															
Brockton Colliery:															
Brockton No. 4,	Slope,	Non-gas.,	Fan,	10	3.0	3.0	110	.8			5	12,000	10,000	13,800	62
William Cooke Estate															
Oakley Colliery:															
Oakley,	Slope,	Non-gas.,	Natural,												8

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh and Wilkes-Barre Coal Co.						
Audenried No. 4,	Schuylkill,	C. F. Huber,	Wilkes-Barre,	E. J. Newbaker,	Audenried,	C. R. R. of N. J.
Honey Brook No. 5,						
Philadelphia and Reading Coal and Iron Co.						
Silver Creek,	Schuylkill,	W. J. Richards, General Manager,	Pottsville,	Reese Tasker, Mining Supt. George B. Hadesty, Dist. Supt. David Jones, Inside Supt. William Tiley, Outside Supt.	Pottsville,	Philadelphia and Reading
Eagle Hill,						
Coxe Brothers and Co., Inc.						
Oneida,	Schuylkill,	F. M. Chase,	Wilkes-Barre,	William H. Davies,	Hazleton,	Lehigh Valley
Lehigh Valley Coal Co.						
Vulcan,	Schuylkill,	F. M. Chase,	Wilkes-Barre,	William Underwood,	Mahanoy City,	Lehigh Valley
Buck Mountain,						
Maryd Coal Co.						
Maryd,	Schuylkill,	T. E. Snyder,	Hazleton,	Arthur Kennedy,	Maryd,	P. and R. and C. R. R. of N. J.
Dodson Coal Co.						
Morea,	Schuylkill,	Truman M. Dodson, General Manager,	Morea,			Penna. and L. V.
Alliance Coal Co.						
Alliance,[1]	Schuylkill,			Thos. F. Downing,	Pottsville,	Philadelphia and Reading
Mill Creek Coal Co.						
Middle Lehigh,	Schuylkill,	T. D. Jones,	New Boston,	J. E. Jones,	New Boston,	Penna. and L. V.
East Lehigh Coal Co.						
East Lehigh,	Schuylkill,	James Tinley,	Tamaqua,	James Tinley,	Tamaqua,	Philadelphia and Reading

[1] Formerly Kaska William, operated by Truman M. Dodson Coal Company. Alliance Coal Company took charge August 12.

Phillips Brothers Coal Co. Silver Hill,	Schuylkill,	D. E. Phillips,	Middleport,	D. E. Phillips,	Mahanoy City,	Philadelphia and Reading
Port Carbon Coal Co. Lucy R.,	Schuylkill,	D. J. Slattery,	Port Carbon,	Joseph V. Connors,	Port Carbon,	Philadelphia and Reading
Gorman and Campion Bell,	Schuylkill,	D. J. Slattery,	Tuscarora,	D. J. Slattery,	Tuscarora,	Philadelphia and Reading
Schuylkill Lehigh Coal Co. Brockton,	Schuylkill,	J. P. Perch,	Brockton,	J. P. Perch,	Brockton,	Philadelphia and Reading
William Cooke Estate Oakley,†	Schuylkill,	B. G. Cooke,	Tuscarora,	B. G. Cooke,	Tuscarora,	Philadelphia and Reading

*Abandoned July.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lehigh and Wilkes-Barre Coal Co.													
Audenried No. 4,		325,638	51,969	2,732	380,339	231	805	3	11	72,775	209 572	----------	73
Stripping,							66						
Honey Brook No. 5,	Schuylkill,	207,766	14,575	----------	322,341	237	613	5	8	6,000	18. 100	----------	49
Stripping,							33						
Miscellaneous,							96						
Totals,		633,404	66,544	2,732	702,680	.....	1,613	8	19	78,775	383,672	----------	112
Philadelphia and Reading Coal and Iron Co.													
Silver Creek,	Schuylkill,	323,882	31,974	4,353	360,209	270	908	2	8	97,025	102,070	49,464	94
Eagle Hill,		250,011	39,117	2,453	291,581	272	667	1	7	62,350	27,492	45,784	50
Totals,		573,893	71,091	6,806	651,790	.....	1,665	3	15	159,375	129,562	95,248	144
Coxe Brothers and Co., Inc.													
Oneida,	Schuylkill,	243,285	40,055	3,392	286,732	276	505	3	9	100,750	62,515	----------	72
Lehigh Valley Coal Co.													
Vulcan	Schuylkill,	106,928	27,091	368	134,387	221	305	....	5	98,850	16,296	519	34
Buck Mountain,		91,396	37,783	585	129,764	208	398	1	7	61,550	14,765	1,212	35
Totals,		198,324	64,874	953	264,151	.....	703	1	12	160,400	31,061	1,731	69
Maryd Coal Co.													
Maryd,	Schuylkill,	212,601	30,415	2,110	245,126	164	485	2	8	49,375	79,866	----------	59

Dodson Coal Co.													
Morea,	Schuylkill,	208,219	33,084	959	242,262	290	617	3	83,125	101,775		41
Alliance Coal Co.													
Alliance,*	Schuylkill,	120,017	36,500	246	156,763	231	550	2	8	40,125	52,985		47
Mill Creek Coal Co.													
Middle Lehigh,	Schuylkill,	119,833	17,000		136,833	240	254	2	3	42,850	19,950		37
East Lehigh Coal Co.													
East Lehigh,	Schuylkill,	31,628	8,700	18,336	58,664	227	94	3	2		8,450		8
Phillips Brothers Coal Co.													
Silver Hill,	Schuylkill,	40,614	3,217	551	44,382	260	85		1	200	7,200	100	8
Port Carbon Coal Co.													
Lucy R.,	Schuylkill,	29,607	450	645	30,702	220	91				12,046		6
Gorman and Campion													
Bell,	Schuylkill,	21,993	1,500		23,493	170	75	1			12,000		8
Schuylkill Lehigh Coal Co.													
Brockton,	Schuylkill,	15,560	1,575	98	17,233	130	123		3	260	500	6,700	5
William Cooke Estate													
Oakley,	Schuylkill,	4,425	300	471	5,256	152	19		1		830		4
Grand totals,		2,453,403	375,365	37,299	2,866,067		6,872	25	84	715,235	903,412	103,779	620

*Formerly Kaska William, operated by Truman M. Dodson Coal Company. Alliance Coal Company took charge August 12.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Lehigh and Wilkes-Barre Coal Co.,	Schuylkill,	39	1,350	45	4,780	6,130	8	------	1	46	6,175	11	17,263	8,345	2	3
Philadelphia and Reading Coal and Iron Co.,		20	600	19	3,050	3,650	4	2	------	58	8,357	8	6,161	1,617	1	3
Coxe Brothers and Co., Inc.,		------	------	23	3,800	3,800	3	3	*1	20	2,750	7	5,920	3,570	------	5
Lehigh Valley Coal Co.,		20	600	16	3,850	4,450	4	3	------	15	2,530	6	6,000	3,360	------	2
Maryd Coal Co.,		------	------	13	1,950	1,950	2	------	------	16	2,200	4	4,000	1,500	------	1
Dodson Coal Co.,		------	------	27	2,950	2,950	4	------	4	15	2,500	6	7,725	7,725	1	1
Alliance Coal Co.,		------	------	16	2,240	2,240	2	------	------	14	2,615	2	2,350	1,500	------	2
Mill Creek Coal Co.,		------	------	15	2,200	2,200	4	------	------	12	1,400	3	6,000	1,500	------	1
East Lehigh Coal Co.,		------	------	3	800	800	------	------	------	10	800	2	200	125	------	------
Phillips Brothers Coal Co.,		------	------	3	290	290	2	------	------	8	227	2	1,150	400	------	------
Port Carbon Coal Co.,		------	------	2	150	150	------	------	2	------	------	------	------	------	------	------
Gorman and Campion,		------	------	2	175	175	------	------	------	6	175	------	------	------	------	1
Schuylkill Lehigh Coal Co.,		------	------	5	1,700	1,700	2	------	------	6	1,800	2	240	120	------	------
William Cooke Estate,		------	------	2	120	120	1	------	------	3	176	------	------	------	------	------
Totals,		79	2,550	191	28,055	30,605	36	8	8	229	31,705	53	57,009	29,762	4	19

*Oil burner.

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Lehigh and Wilkes-Barre Coal Co.,	Schuylkill,	3	2	4	363	203	56	32	15	224	188	1,090	3	7	38	69	91	2	4	309	523	1,613
Philadelphia and Reading Coal and Iron Co.,		3	18	----	404	246	73	------	4	155	264	1,167	----	5	22	57	78	34	7	295	498	1,665
Coxe Brothers and Co., Inc.,		1	3	----	222	24	30	2	3	24	76	385	----	1	4	27	----	----	3	85	120	505
Lehigh Valley Coal Co.,		2	4	5	178	75	28	8	4	50	60	414	1	2	12	35	49	31	6	152	288	702
Maryd Coal Co.,		1	1	6	135	77	14	6	4	24	54	322	1	2	9	26	18	----	3	104	163	485
Dodson Coal Co.,		1	----	3	68	78	22	6	4	56	159	397	1	1	19	34	17	10	3	135	220	617
Alliance Coal Co.,		1	----	6	160	24	39	2	4	90	120	446	1	1	10	33	----	----	3	56	104	550
Mill Creek Coal Co.,		1	----	2	64	28	15	1	4	14	7	136	1	1	8	22	7	9	3	67	118	254
East Lehigh Coal Co.,		----	1	1	16	6	4	1	2	6	----	37	1	1	3	5	8	----	1	38	57	94
Phillips Brothers Coal Co.,		1	1	1	14	9	4	2	2	9	----	43	1	1	1	6	9	----	1	23	42	85
Port Carbon Coal Co.,		1	----	----	42	9	9	1	------	------	3	65	1	1	2	2	3	----	----	15	26	91
Gorman and Campion,		1	----	----	20	6	5	2	------	------	9	43	1	1	2	6	6	----	1	15	32	75
Schuylkill Lehigh Coal Co.,		1	1	----	59	4	3	------	2	3	------	64	1	1	4	7	4	----	2	40	59	123
William Cooke Estate,		----	1	----	4	2	1	------	------	------	------	8	----	1	----	----	4	----	----	5	11	19
Totals,		17	32	28	1,749	791	303	63	48	655	940	4,617	13	26	134	330	296	86	37	1,339	2,261	6,878

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Lehigh and Wilkes-Barre Coal Co.,	Schuylkill,	22	17	19	20	22	23	9	14	17	25	23	23	234
Philadelphia and Reading Coal and Iron Co.,		23	21	27	22	25	24	18	17	21	25	24	24	271
Coxe Brothers and Co., Inc.,		24	18	23	23	26	26	18	19	24	26	24	25	276
Lehigh Valley Coal Co.,		20	16	17	17	19	20	14	16	18	20	18	20	215
Maryd Coal Co.,		16	13	13	14	16	13	14	9	9	16	16	15	164
Dodson Coal Co.,		24	24	27	22	25	26	24	26	24	23	23	22	290
Alliance Coal Co.,		19	18	20	20	22	16	18	22	17	19	20	20	231
Mill Creek Coal Co.,		22	17	21	20	20	23	14	18	23	23	21	18	240
East Lehigh Coal Co.,		26	21	26	19	6	-----	10	24	24	22	25	24	227
Phillips Brothers Coal Co.,		22	22	20	24	26	19	19	24	22	20	23	19	260
Port Carbon Coal Co.,		20	15	16	17	19	18	13	17	22	21	22	20	220
Gorman and Campion,		23	15	18	20	10	12	10	12	14	12	12	12	170
Schuylkill Lehigh Coal Co.,		-----	-----	-----	-----	-----	5	20	19	17	24	22	23	130
William Cooke Estate,		24	24	24	22	25	24	9	-----	-----	-----	-----	-----	152

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 14	Walter Kanososky,	Russian,	Miner,	26	S.			Oneida,	Schuylkill.	Killed by fall of roof at face of breast on gangway.
27	George Bovschock,	Hungarian,	Laborer,	49	M.	1	1	Honey Brook No. 5,		Killed by a large boulder of rock that rolled down from top of stripping. Outside.
31	Frank Merook,	Polish,	Miner,	46	M.	1	2	Middle Lehigh,		Killed by fall of slate from top, 30 feet back from face of breast.
Feb. 17	Anthony Novick,	Lithuanian,	Miner,	48	M.	1	3	Eagle Hill,		Killed by blast at face of breast while in the act of lighting a squib.
22	George Fremore,	Russian,	Miner,	36	M.	1	5	Honey Brook No. 5,		Killed by being struck by runaway trip of empty cars. Hitching bar broke on slope.
March 9	Martin Marook,	Polish,	Miner,	35	M.	1	2	Middle Lehigh,		Fatally injured internally by piece of top coal falling on him at face of breast. Died in hospital at Ashland.
26	Samuel Marshall,	American,	Pump-runner,	25	M.	1	4	East Lehigh,		Smothered by smoke from fire in pump house while trying to extinguish fire.
April 7	William Rice,	Lithuanian,	Miner,	32	M.	1	3	Maryd,		Killed by fall of slate from top while robbing back pillar.
May 4	Martin Beilash,	Polish,	Miner,	50	M.	1	1	Audenried No. 4,		Fatally injured by fall of top coal at face of breast.
5	Anthony Ladage,	Lithuanian,	Laborer,	24	S.			Silver Creek,		Killed by piece of slate that fell on him at face of gangway while he was putting up a set of timber.
12	Joseph Abraham,	Hungarian,	Miner,	29	M.	1	2	Audenried No. 4,		Killed by fall of top slate at face of breast.
18	Joseph Shapolis,	Lithuanian,	Miner,	50	M.	1	7	Kaska William, (Now Alliance)		Killed by falling down shaft while riding up on cage.
26	Peter Grough,	Austrian,	Miner,	40	M.	1	2	Maryd,		Killed by rush of coal in manway of breast while starting a blocked manway.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 19	John Griffin,	American,	Miner,	50	M.	1	8	Silver Creek,		Killed by fall of rock while dressing down top of tunnel to make it safe.
	Paul Theodoro,	Russian,	Laborer,	52	S.			Audenried No. 4,		Killed by a dumper of rock tilting on him on rock bank on stripping. Outside.
26	Michael Orlosky,	Russian,	Laborer,	27	M.	1	1	Honey Brook No. 5,		Smothered by rush of culm clay and coal while starting check bottom in chute.
July 8	John Paullucce,	Italian,	Miner,	45	M.	1	1	Honey Brook No. 5,		Killed by runaway mine car that ran out of breast on grade of from 4 to 8 degrees.
Aug. 2	John English,	Irish,	Fireboss,	43	M.	1	4	Kaska William, (Now Alliance)		Fatally burned. He lit his naked lamp before completing his rounds in the breasts in the morning and ignited a body of gas that was brought down by a fall of coal from face of breast.
Oct. 5	Stephen Reitmyer,	American,	Patcher,	16	S.			Oneida,	Schuylkill,	Killed by being caught between mine cars and prop on high side of gangway.
6	John Mulligan,	American,	Structural iron worker,	29	M.	1	1	Buck Mountain,		Fatally injured by falling from swinging scaffold in breaker, breaking his skull. Outside.
23	Benjamin Houser,	American,	Laborer,	66	M.	1		East Lehigh,		Killed by being smothered by rush of culm from culm bank. Outside.
Nov. 17	Curtis Seidle,	American,	Carpenter,	22	S.			Bell,		Fatally injured by falling from top of new breaker. Died same day. Outside.
18	Constantine Biernice,	Slavonian,	Miner,	28	S.			Honey Brook No. 5,		Smothered by rush of coal dirt and mud from surface when pillar gave way.
Dec. 27	Andrew Harduc,	Slavonian,	Miner,	41	M.	1	8	Oneida,		Killed by fall of top slate at face of gangway.
	Byrne Vetskomos,	Polish,	Miner,	35	M.	1		East Lehigh,		Fatally injured by blast in monkey heading, East A. vein. Died January 2, 1912.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Isadore Rice,	Lithuanian,	Driver,	45	M.	Audenried No. 4,		Both legs broken by explosion of blast. He charged three short holes that he had drilled to make room for road sills at face of gangway. He lit two of the fuses and was trying to light the other one when the two he had lit exploded.
12	Edward Colon,	Lithuanian,	Miner,	19	S.	Silver Hill,		Leg broken by being caught between bumpers of trip of loaded cars standing on bottom turnout and loaded trip pulling on to the turnout with a team of mules.
12	Adam Chockles,	Polish,	Miner,	38	M.	Maryd,	Schuylkill,	Hands and face burned by powder. A spark from Chockles' lamp fell into keg of black powder while he was making up a charge for a blast in breast heading.
	Anthony Zubritsky,	Russian,	Miner,	34	M.			
	August Marznone,	Tyrolean,	Miner,	31	S.	Oneida,		Leg broken by piece of roof falling on it at face of gangway.
14	John Valk,	Hungarian,	Miner,	32	M.	Oneida,		Head, face and body cut and bruised by fall of roof at face of breast in gangway.
17	John Whalen,	American,	Miner,	39	M.	Eagle Hill,		Two fingers of right hand cut off by being struck by an axe in the hand of his laborer while dressing the butt of a gangway leg on gangway.
24	Patrick Haggerty,	Irish,	Miner,	46	M.	Morea,		Leg broken by being struck by a piece of coal that rolled down manway.
26	William Rasavage,	Lithuanian,	Miner,	38	M.	Vulcan,		Foot injured by a mining needle that penetrated his instep in chute.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 1	Martin Lopeot,	Slavonian,	Miner,	31	M.	Oakley,		Jaw bone broken by being caught between car and coal at bottom of slope when car jumped the track.
14	Joseph Kennedy,	American,	Patcher,	22	S.	Oneida,		Small bone of leg broken by being caught between bumpers of timber truck and locomotive. Outside.
18	Joseph Zerbon,	Polish,	Miner,	35	M.	Kaska William, (Now Alliance)		Body squeezed by being caught under rush of coal off pillar while putting up a set of timber in heading.
20	Stiney Kenelousky,	Polish,	Miner,	56	M.	Kaska William, (Now Alliance)		Ribs broken. He was returning into breast after firing a blast when a piece of slate fell on him.
22	James Baker,	American,	Company man,	53	M.	Oneida,	Schuylkill,	Collar bone broken by being caught between mine cars and timber on high side of gangway.
27	Joseph Laplock,	Italian,	Laborer,	37	M.	Silver Creek,		Body bruised by being caught against mine car by rush of culm from bank. Outside.
	Charles Verigo,	Italian,	Laborer,	32	M.			
	Henry Schalegae,	American,	Stableman,	48	M.	Eagle Hill,		Arm broken by being thrown from wagon when team of horses shied. Outside.
March 1	Charles Selega,	Polish,	Miner,	28	S.	Buck Mountain,		Hands and face burned by gas. He struck a match to light a shot in face of chute and ignited the gas.
2	Shandor Kisz,	Hungarian,	Company man,	48	M.	Honey Brook No. 5,		Leg fractured. He was barring down a collar of an old set of timber and as the timber fell he was struck by the bar that he was using.
4	Frank Alspach,	German,	Timberman,	28	M.	Morea,		Leg fractured by being kicked by a mule that he was taking to stable. Outside.

March 4	Eben Pergrans,	Welsh,	Miner,	51	M.	Vulcan,		Hands and face burned by gas. He was working with a naked lamp at face of chute and ignited the gas.
20	Leo Patrick,	Russian,	Miner,	25	S.	East Lehigh,		Hands and face burned by gas in breast. He uncovered his safety lamp to light it with match and ignited traveling gas.
21	Joseph Nujer,	Hungarian,	Miner,	24	M.	Oneida,		Right leg broken by fall of coal at face of breast.
25	Peter Clem,	Lithuanian,	Miner,	58	M.	Middle Lehigh,		Face cut and hand smashed by blast from dynamite placed on obstruction in manway to remove it.
April 2	Thomas Carr,	American,	Engineer,	29	M.	Honey Brook No. 5,		Hands and face scalded by escaping steam when locomotive jumped off the track and broke off steam pipe. Outside.
	Albert Sundock,	American,	Engineer,	21	S.			
	Jacob Lutz,	American,	Fireman,	44	M.	Buck Mountain,		Leg scalded.
6	Joseph Mingo,	Italian,	Miner,	26	M.	Honey Brook No. 5,		Skull fractured by being struck by elbow of blow-off steam cock which broke while in the act of turning it. Outside.
12	Leo Collins,	American,	Laborer,	20	S.	Buck Mountain,		Ankle sprained by being struck by car at bottom of slope.
	James McFadden,	American,	Miner,	28	M.	Honey Brook No. 5,		Injured internally and shoulder lacerated by being caught in machinery of scraper line. Outside.
	John Zeronightis,	Russian,	Miner,	23	S.	Buck Mountain,	Schuylkill,	Leg injured by being struck by car wheel on gangway. The wheel had came off car descending slope.
15	James Ryan,	American,	Engineer,	24	S.	Buck Mountain,		Leg fractured by fall of slate in breast while pulling out prop from under it.
	Venturie Buckenary,	Italian,	Laborer,	27	S.	Buck Mountain,		Head cut. He ran into a broken down collar on gangway when taking his first trip of cars in gangway.
20	William Mingo,	Italian,	Patcher,	19	S.	Audenried No. 4,		Leg fractured by being thrown from front end of loaded car on which he was riding up the new pump slope.
	James Gallagher,	American,	Patcher,	20	S.	Audenried No. 4,		Foot bruised by being caught between bumpers of cars in stripping. Outside.
22	Lawrence Gumbovage,	Italian,	Laborer,	49	M.	Maryd,		Knee squeezed by being caught between mine cars at bottom of plane. Outside.
May 3	John Semitski,	Polish,	Miner,	42	M.	Audenried No. 4,		Two ribs and ankle broken by fall of slate at face of gangway.
8	John Ferraz,	American,	Bottomman,	24	S.	Maryd,		Foot fractured. A mine car caught a piece of rock on which he was sitting on platform of chute and threw him over the car to low side of gangway.
								Ankle bruised by prop falling on him. A mine car on No. 1 slope jumped off the track and knocked out prop.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
May 10	James Buntz,	Italian,	Laborer,	40	M.	Kaska William, (Now Alliance)		Thumb cut off by being caught in rigging of gallows while hoisting car on end of rock bank. Outside.
11	John Idrichick,	Hungarian,	Driver,	20	S.	Audenried No. 4,		Compound fracture of leg. While riding on the front of a trip of mine cars they jumped the track and threw him against low side of gangway.
12	Gaber Saloka,	Hungarian,	Laborer,	54	M.	Audenried No. 4,		Hips bruised by being caught between bumpers of locomotive and dump cars. Outside.
20	John Shelinsky,	Lithuanian,	Miner,	25	S.	Maryd,		Hip dislocated by fall of top coal while dressing down loose coal from face of breast.
	Frank Maskawide,	Lithuanian,	Miner,	36	M.	Oneida,	Schuylkill,	Leg cut by being struck by a piece of slate that slid down over loose coal he was moving in breast.
	Leopold Flain,	Tyrolean,	Miner,	43	M.	Oneida,		Hands and face burned by gas. He raised his naked lamp to a vacant space above the timber at face of gangway and ignited gas.
25	Elmer VanBlaragan,	American,	Assistant mine foreman,	30	M.	Oneida,		Arm broken by being struck by a pulley while riding up slope.
June 3	Anthony Wasco,	Polish,	Laborer,	65	S.	Silver Creek,		Compound fracture of leg. Caught between bumpers of cars on turnout on top of coal shaft. Leg had to be amputated. Outside.
5	William H. James,	American,	Miner,	45	M.	Morea,		Fingers of both hands blown off. In taking a dynamite cap out of box a spark fell into box and exploded all the caps.

June	7	Martin Halupko,	Slavonian,	Laborer,	32	M.	Audenried No. 4,			Shoulder dislocated, side crushed, ribs fractured and ankle broken by fall of top slate at face of breast.
	13	Walter H. Burns,	American,	Fireboss,	35	M.	Maryd,			Face and hands burned by gas while examining breast in morning.
		Anthony Chipreana,	Italian,	Miner,	33	S.	Maryd,			Face and hands burned by gas. He went up in breast with naked lamp and ignited gas.
	16	Joseph Spotts,	American,	Laborer,	25	M.	Kaska William, (Now Alliance)			Body bruised and head cut by falling down shaft.
	19	James Leonard,	American,	Driver,	18	S.	Silver Creek,			Body bruised by falling under mine car at bottom of shaft.
	21	Alex Bardenosc,	Polish,	Patcher,	19	S.	Honey Brook No. 5,			Compound fracture of ankle by falling off locomotive. Outside.
	23	Casper Golbeck,	American,	Driver,	27	S.	Maryd,			Body squeezed by being caught between mine cars and timber on gangway.
	26	Andrew Gratsin,	Polish,	Miner,	36	M.	Middle Lehigh,			Collar bone fractured by fall of coal at face of counter gangway.
July	12	Lewis Cassat,	American,	Footman,	23	M.	Audenried No. 4,			Thumb crushed by being caught by the retracker while putting on mine car on plane. Outside.
	14	Michael Burcot,	Polish,	Miner,	38	M.	Kaska William, (Now Alliance)			Leg broken by fall of slate in chute.
	22	Simon Ramos,	Lithuanian,	Miner,	24	S.	Silver Creek,			Leg broken by falling down chute while running away from shot.
	22	Thomas Troutman,	American,	Miner,	28	M.	Silver Creek,	Schuylkill,		Face and arms cut and eye injured by blast while tamping hole in face of breast.
	24	Mike Nesweski,	Lithuanian,	Laborer,	22	S.	Silver Creek,			Legs broken by a piece of slate that fell from high side of gangway while loading car.
Aug.	1	William Foose,	American,	Miner,	23	S.	Oneida,			Hip dislocated by being struck by timber. While timbering on gangway a piece of clod or slate fell and knocked out two sets of timber.
	3	Stephen Watchesky,	Lithuanian,	Miner,	28	M.	Kaska William, (Now Alliance)			Hands and face burned by gas in breast.
Sept.	1	Anthony Bartnice,	Polish,	Patcher,	16	S.	Audenried No. 4,			Leg fractured by being caught between bumpers of loaded cars in gangway.
		John Zelosky,	Russian,	Miner,	38	M.	Honey Brook No. 5,			Thumb and index finger blown off. While forcing the fuse into a dynamite cap it exploded, in breast.
	15	Andrew Sarchok,	Slavonian,	Miner,	24	M.	Buck Mountain,			Back bruised by a piece of coal falling on him while he was raking coal into chute.
	15	John Kahler,	American,	Spragger,	17	S.	Silver Creek,			Leg squeezed by being caught between loaded cars on gangway. Leg amputated.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 22	Stephen Lychock,	Slavonian,	Miner,	25	M.	Eagle Hill,		Face, hands and back burned by gas at face of breast.
	Harry Lychock,	Slavonian,	Miner,	32	M.			
Oct. 2	Cussat Donk,	Italian,	Patcher,	21	S.	Audenried No. 4,		Foot crushed by being run over by mine cars. Outside.
9	Isaac Lewis,	Welsh,	Miner,	55	M.	Vulcan,		Hand injured by being caught by drill against the pillar while starting coal in chute.
18	Joseph Karasofskey,	Lithuanian,	Miner,	46	S.	Vulcan,		Wrist cut by being struck by piece of coal that fell from top at face of breast.
Nov. 3	Stiney Bovish,	Lithuanian,	Miner,	44	M.	Middle Lehigh,		Head cut and body bruised by falling down the airway, a distance of 200 feet.
9	Joseph Yutko,	Slavonian,	Miner,	27	M.	Honey Brook No. 5,		Head and face lacerated by falling down manway, a distance of 25 feet.
21	Simon Liscavage,	Lithuanian,	Miner,	45	M.	Alliance,	Schuylkill,	Hands and face burned by gas at face of breast.
	Thomas Switscavage,	Lithuanian,	Miner,	32	S.			
24	Joseph Ruscavage,	Polish,	Miner,	32	M.	Brockton,		Back injured by fall of slate in chute.
	Joseph Franna,	Austrian,	Laborer,	19	S.			Ribs broken and injured internally.
Dec. 11	Elek Sohena,	Slavonian,	Miner,	44	M.	Audenried No. 4,		Contused pelvis. A piece of rock fell on him at face of gangway.
	Louis Lubushafsky,	Polish,	Miner,	33	M.	Eagle Hill,		Hands and face burned by gas at face of breast.
	John Gregitas,	Polish,	Miner,	29	M.			
	Anthony Lazor,	Slavonian,	Driver,	20	S.	Vulcan,		Hand cut and bruised by wheel of mine car running over it. Outside.
	Harry Meek,	American,	Topman,	16	S.	Brockton,		Fingers crushed by wheel of mine car running over them. Outside.
19	George Breansky,	Polish,	Laborer,	47	M.	Eagle Hill,		Body and hips squeezed by being caught between mine car and centre prop near bottom of slope.
30	John Tomcavage,	Polish,	Miner,	38	M.	East Lehigh,		Head and body injured by blast in monkey heading.

CONDITION OF COLLIERIES

LEHIGH AND WILKES-BARRE COAL COMPANY

Audenried No. 4 and Honey Brook No. 5.—Ventilation, drainage and condition as to safety, good.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Silver Creek and Eagle Hill.—Ventilation, drainage and condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Oneida.—Ventilation, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Buck Mountain and Vulcan.—Ventilation and condition as to safety, good; drainage fair.

MARYD COAL COMPANY

Maryd.—Ventilation and drainage fair; condition as to safety, good.

DODSON COAL COMPANY

Morea.—Ventilation and condition as to safety, good; drainage fair.

ALLIANCE COAL COMPANY

Alliance (Formerly Kaska William, operated by Truman M. Dodson Coal Company).—Ventilation and drainage fair; condition as to safety, good.

MILL CREEK COAL COMPANY

Middle Lehigh.—Ventilation good; drainage and condition as to safety, fair.

EAST LEHIGH COAL COMPANY

East Lehigh.—Ventilation and drainage fair; condition as to safety, good.

PHILLIPS BROTHERS COAL COMPANY

Silver Hill.—Ventilation and condition as to safety, good; drainage fair.

PORT CARBON COAL COMPANY

Lucy R.—Ventilation and drainage fair.

GORMAN AND CAMPION

Bell.—Ventilation, drainage and condition as to safety, good.

SCHUYLKILL LEHIGH COAL COMPANY

Brockton.—Ventilation and drainage fair; condition as to safety, good. This colliery was formerly operated by Big Creek Coal Company.

WILLIAM COOKE ESTATE

Oakley.—Ventilation and drainage fair; condition as to safety, good. Abandoned July.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Audenried No. 4 Colliery.—Installed duplex pump 15 and 25 by 12 by 36 inches, in No. 23 slope, 2nd lift.

Equipped No. 1 inside slope and plane with bore hole and hoisting engines.

Tunnel Buck Mountain to Gamma, No. 1 inside slope and plane.

Tunnel Lykens to Wharton, No. 23 slope.

Four hundred and fifty H. P. return tubular boiler plant, No. 21 slope.

Honey Brook No. 5 Colliery.—Turnout tunnel, South dip to North dip Lykens, 3rd lift, No. 20 slope.

Tunnel Lykens to Lykens, 2nd lift, No. 15 slope.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Silver Creek Colliery.—The air tunnel mentioned in last year's report from the Orchard North dip to the Primrose South dip, No. 4 plane level, completed to the Holmes South dip; length 950 feet.

The traveling and mule way from the East Holmes gangway No. 3 plane at breast No. 29 to the No. 4 plane level, completed.

The air tunnel mentioned in last year's report from the East Middle Split to the Bottom Split at breast No. 33, No. 4 plane level, completed; length 240 feet.

Cross-cut driven from the East Skidmore shaft level to the Bottom Split of the Mammoth; length 75 feet.

Plane and counter gangways opened at breast No. 5 East Bottom Split, No. 1 plane level basin gangway, with 8 breasts west and 5 breasts east.

Rock hole driven from No. 8 breast East Skidmore inside section No. 1 plane level to the Bottom Split of Mammoth vein. Gangways have been turned east and west.

Air hole through rock driven from the West Holmes, No. 3 plane level to the West Primrose, length 78 feet.

Gangways east and west on the Holmes South dip and the Primrose South dip, main tunnel, No. 4 plane level (Cedar Hill basin), have been started.

Tunnel 5 feet by 6 feet from the East Top Split, No. 3 plane level driven to the tender shaft for second outlet.

Tunnel 80 feet long, from the West Skidmore No. 4 plane level South dip through the saddle to Skidmore North dip, has been completed.

Air locomotive installed on No. 4 plane level.

Two air holes are being driven from the West Holmes South dip, Cedar Hill basin, No. 4 plane level to the surface.

Tunnel completed from the West Middle Split No. 4 drift to the Top Split vein, cutting it on both dips; length 55 feet.

Cross-cut driven from the West Skidmore No. 4 drift to the Seven Foot; length 30 feet.

Tunnel 220 feet long completed from the West Skidmore No. 4 drift south, cutting the Bottom, Middle and Top Splits. Gangways turned east on the Bottom Split and Top Split veins.

Tunnel has been completed from the West Top Split of the Buck Mountain vein, No. 1 drift to the Middle and Bottom Split of the same vein; length 80 feet.

Tunnel 140 feet long driven from the East Skidmore gangway, No. 2 drift at breast No. 10, to the Middle Split.

Eagle Hill Colliery.—The Orchard North dip, Orchard South tunnel, Primrose North dip drift is being continued north from the Orchard South dip vein. The Holmes, Top Split, Middle Split and Bottom Split South dip veins and the Bottom Split North dip vein have been cut. Gangways turned east and west on the Primrose South dip and on the Middle Split South dip vein.

The Holmes, Primrose haulage tunnel, West Holmes gangway, No. 1 Section west 6th lift has been completed and a gangway turned west on the Primrose vein.

The No. 2 air tunnel west at chute No. 45 in the West Skidmore monkey heading, 6th lift to the Holmes vein has been completed, a distance of 640 feet, cutting the Mammoth vein in both splits.

Haulage tunnel driven south from the East Skidmore gangway, 6th lift, opposite chute No. 42 to the Top Split of the Mammoth vein, a distance of 350 feet, cutting the Bottom and Middle Splits of the Mammoth vein. Gangway turned west on the Top Split vein.

Air tunnel is being driven south from the East Skidmore monkey heading 6th lift between chutes Nos. 43 and 44 to the Top Split of the Mammoth vein, a distance of 350 feet. The Bottom Split of the Mammoth vein has been cut.

COXE BROTHERS AND COMPANY, INCORPORATED

Oneida Colliery.—The new plant at Slope No. 8 mentioned in the 1910 report was completed and the first coal sent through the slope on March 15, 1911.

The opening work at Slope No. 1 progressed regularly; 240 feet of gangway driven in the Mammoth vein, 1,830 feet in the Wharton vein, and 2,600 feet in the Buck Mountain vein. The 3rd lift East gangway has turned the basin and breasts worked in the spoon have struck the same fault that cut out the gangway on 1st and 2nd lift, north and south of the synclinal axis, before reaching the Humboldt boundary line.

At Slopes Nos. 1 and 4 an oil-burning locomotive was installed. Gangways were extended in the Buck Mountain vein ,which is the only vein worked in this section at present; 350 feet driven east above a fault on the upper level, and 650 feet west on the lower level. A dip gangway, following the spoon in the Green Mountain or South basin, was extended 250 feet and stopped at 570 feet, pending the installation of electricity.

At Slopes Nos. 3 and 5 a new hoisting engine was installed at the shaft hoist, or rather relocated to the South. All opening work was done in the Buck Mountain vein, driving 2,120 feet of gangway. The stripping west of Slope No. 6 has been extended and 80,524 yards removed, bringing the total excavation up to 320,305 yards by January 1, 1912.

LEHIGH VALLEY COAL COMPANY

Vulcan Colliery.—The old mule barn on the 3rd level was reconstructed with concrete and steel, making a modern fireproof stable.

A concrete and steel aqueduct was made across the slope and airway on the 4th level to convey the water to the new pumping plant Buck Mountain.

New mule barns of fireproof material are being made on the 4th and 5th levels to replace the old ones.

The new 25 foot ventilating fan was completed during the year. The building and airway down to the rock of the Buck Mountain vein are made of brick and concrete, making a complete fireproof structure. This fan is now doing the work formerly done by the one on the Buck Mountain and the one on the Mammoth vein. The old Mammoth fan has been removed.

A pair of 30 by 48-inch engines, Vulcan Iron Works pattern, direct connected link reversing, Corliss valve motion, equipped with 8′-0 diameter drum steam brake and steam reverse, placed in a new concrete engine room to do the work now being done by the two old pairs of hoisting engines.

Buck Mountain Colliery.—Inside: The pump room and pipeways of concrete and iron, commenced last year have been completed and two 18 and 27 and 42 by 14 by 36 triple expansion Duplex plunger pumps, built by the Goyne Steam Pump Works of Ashland, have been set in place, and will soon be ready to operate. They will take care of all the water made at Buck Mountain and Vulcan mines. A new concrete and steel fireproof mule barn is under construction on the 4th level and will do away with all the old mule barns at this colliery.

Outside: A new 21 foot diameter reversible ventilating fan, housed in a brick and concrete building was erected near the No. 3 slope and put in operation September 19, 1911. The two old wooden fans formerly used have been removed. The new 2,100 horse power boiler plant erected last year was put in operation, doing away with the old cylinder boiler plant at Buck Mountain. Three new engine rooms and a locomotive and compressor house of concrete and steel construction were erected near the new breaker. Work on the new concrete and steel breaker has been carried on during the year and it is expected that the breaker will be completed and ready for operation by April 1, 1912. A two-story concrete oil house was built near the colliery warehouse and office.

A breaker wash water reservoir was built to supply the breaker with water and a 10-inch column pipe laid to deliver the water. A new wagon road was built to the colliery and 10 blocks of modern dwelling houses erected.

Two 8-inch bore hole wells were drilled and are being pumped with compressed air to supply plant with fresh water.

MARYD COAL COMPANY

Maryd Colliery.—Rock pump house steel timbered on 1st level of shaft at foot of Diamond vein slope, 16 by 75 by 12 feet high.

Goyne Compound Duplex wood line pump 17 by 32 by 14 by 36 inches.

Fourteen-inch wood lined column to surface.

Eight-inch steam main from surface to pump house.

Tunnel 815 feet long, driven connecting shaft 1st level with No. 1 slope workings.

Tunnel 433 feet long driven from Top-Split of Mammoth to tap water in Potts' old Big Creek slope and develop Mammoth vein at western end of property.

In addition to two tunnels mentioned above there was a total of 380 feet of tunnel driven at different parts of the mine, making total of 1,628 feet of rock tunnel for year.

Shaft cleaned out, repaired and guided to 2nd level, and gangways turned. 256 feet turnout driven.

Outside: Settling tank 12 feet by 22 feet, concrete. Conveyor line from same to convey slush.

One double Lehigh Valley jig on buckwheat coal.

Complete renewal of machinery at head of 54-inch conveyor line at breaker.

New battery, 250 horse power, Stirling boilers nearly completed.

DODSON COAL COMPANY

Morea Colliery.—Outside: An addition to the colliery office—an engineer's drafting room equipped with fireproof vault.

Inside: Placed steel timber in 3rd level steam air column way, from 3rd level pumping plant to within a short distance of the surface.

Completed the erection of a steel and cement pump-house on the 3rd level and installed therein a Jeanesville compound Duplex pump, size 27 by 50 by 14 by 48, 500 foot head.

Erected a new corrugated iron and cement breaker pump-house and installed therein a Jeanesville horizontal Duplex steam pump, size 20 by 14 by 36 inches, 190 foot head.

ALLIANCE COAL COMPANY

Alliance Colliery.—Slope sunk from surface to old shaft level, a distance of 306 yards.

Tunnel from Skidmore water level to Bottom Split, a distance of 19⅔ yards.

Tunnel from West Middle Split No. 2 shaft 2nd level to Top Split, 17 yards.

Tunnel from East Skidmore No. 2 shaft 2nd level to Bottom Split, 28 yards.

The pump house at the bottom of No. 1 shaft has been retimbered in rock with iron girders, lagged with rail and covered with plate iron.

MILL CREEK COAL COMPANY

Middle Lehigh Colliery.—Tunnel third level, Buck Mountain vein to Seven Foot vein, completed.

Tunnel driven from Skidmore vein South dip to Bottom Split of Mammoth vein, South dip, 2nd level.

Slope sunk in Seven Foot vein South dip from surface to 1st level, 528 feet by December 31, 1911.

Pump houses 1st and 3rd levels, made fireproof with iron supports.

EAST LEHIGH COAL COMPANY

East Lehigh Colliery.—The boiler plant moved 50 feet east of old location and one 200 horse power Heine boiler installed.

GORMAN AND CAMPION

Bell Colliery.—Erected a new 500-ton breaker and installed two tubular boilers 350 horse power.

Continued water level tunnel south from Bottom Split of Mammoth vein to Skidmore vein, distance 93 feet.

Rock slope south, Dip 24, to connect with tunnel driven North from Holmes vein; length of slope, 93 feet.

Tunnel 8 by 10 feet, 112 feet long, south from bottom of slope to Top Split 8 by 15 feet.

Fan in course of erection, diameter 10 feet, blades 48 inches by 24 inches.

SCHUYLKILL LEHIGH COAL COMPANY

Brockton Colliery.—Ten proving holes sunk on property.

Two diamond drill holes, depth 377 feet each.

Water pumped out of Nos. 4, 2 and 5 slopes.

Complete telephone lines connecting entire property.

Three new Christ jigs installed in breaker; also a new scraper line, one set of rollers and segments.

Five hundred feet of 3-inch pipe line from boiler house to breaker.

Two return tubular boilers 340 horse power.

One new hoisting engine at No. 4 slope capable of hoisting four cars at a time.

One and one-half mile of track, 36-inch gauge, with 35-pound rails, from breaker to Whitfield culm bank.

One mile of track from No. 1 slope to No. 5 slope. Thirty mine cars, capacity 2½ tons.

One Worthington pump 12 by 6 by 12.

One No. 9 Cameron pump.

One complete hoisting plant at No. 5 slope.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23. The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John Currey, Middleport; John Humphries, Tamaqua; Thomas J. Price, Maryd.

Assistant Mine Foremen

David Thompson, Cumbola; Thomas A. Davis, Pottsville; William Doyle, Silver Creek; John Breslin, New Philadelphia; John Samuels, Pottsville; Alexander Hyland, James Cannon, Maryd; Daniel Tolan, New Boston; John D. Davis, James B. Cullen, Coaldale; Harry Berry, Tamaqua.

NINETEENTH DISTRICT

SCHUYLKILL COUNTY

Pottsville, Pa., March 2, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Nineteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
MICHAEL J. BRENNAN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	45
Number of mines in operation,	44
Number of tons of coal shipped to market,	2,665,280
Number of tons used at mines for steam and heat,	469,411
Number of tons sold to local trade and used by employes,	38,530
Number of tons produced,	3,173,221
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,873
Number of persons employed outside,	2,437
Number of fatal accidents inside of mines,	23
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,,	45
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside,	137,966
Number of persons employed per fatal accident inside,	212
Number of persons employed per fatal accident outside,.	406
Number of persons employed per non-fatal accident inside,	108
Number of persons employed per non-fatal accident outside,	271
Number of wives made widows,	15
Number of children made orphans,	31
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	27
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	13
Number of electric motors used outside,	.....
Number of fans in use,	42
Number of furnaces in use,	.....
Number of gaseous mines in operation,	32
Number of non-gaseous mines in operation,	12
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company, ...	1,268,780
St. Clair Coal Company, ...	392,685
Lytle Coal Company, ...	341,771
Pine Hill Coal Company, ...	534,622
Oak Hill Coal Company, ...	324,240
Buck Run Coal Company, ...	233,317
Darkwater Coal Company, ...	103,430
Mt. Hope Coal Company, ...	86,275
John H. Davis Company, ...	34,177
White and Company, ...	29,449
Butcher Creek Coal Company, ...	22,500
Black Heath Coal Company, ...	1,975
Total, ...	3,173,221

Production by Counties

Schuylkill, ...	3,173,221

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	8	1	9	15	1	16	158,597	84,585	2,275	1,133	3,408	284	1,133	152	1,133
St. Clair Coal Co.,		3	3	3	2	5		130,895	465	235	700		78	155	117
Lytle Coal Co.,	5		5	9	2	11	68,354	37,974	554	227	781	110		61	113
Pine Hill Coal Co.,	1		1	1	1	2	334,622	334,622	420	180	600	420		420	180
Oak Hill Coal Co.,	7		7	3	1	4	46,320	168,080	476	243	719	68		159	243
Buck Run Coal Co.,				7		7		33,331	332	121	453			47	
Darkwater Coal Co.,	2		2	3	1	4	51,715	34,476	133	78	211	66		44	78
Mt. Hope Coal Co.,		1	1		1	1			73	91	164		91		91
White and Co.,				3		3		9,816	70	40	110			23	
Butcher Creek Coal Co.,		1	1	1		1		22,500	27	32	59		27	32	
Miscellaneous Companies,									48	57	105				
Totals and averages for district,	23	6	29	45	9	54	137,966	70,516	4,873	2,437	7,310	212	406	108	271

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,					1			2	1				4	17.39
Falls of slate,	1			1	2				3			1	8	34.78
Mine cars,			1		1						1		3	13.04
Blasts, premature and otherwise,	2		2							1			5	21.74
Falling into slopes, etc.,											1		1	4.35
Mules,						1							1	4.35
Electricity,								1					1	4.35
Totals,	3		2	1	4	1		3	4	1	2	1	23	100.00
Causes of Accidents Outside														
Cars,						1							1	16.67
Machinery,							1						1	16.67
Clay rolled on him,	1												1	16.67
Fell from platform,					1								1	16.66
By falling,						1						1	2	33.33
Totals,	1				1	2	1					1	6	100.00
Grand totals inside and outside,	4		2	1	5	3	1	3	4	1	2	2	29	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,			1	2		1	1						5	11.11
Falls of slate,			1		1	1		1	3	2			9	20.00
Mine cars,	2	1			2	1				1	2		9	20.00
Explosions of gas,		1				4		1	2	1		2	11	24.45
Blasts, premature and otherwise,	1	1	1			1		1	2				7	15.56
Falling into slopes, etc.,												1	1	2.22
Struck by support,	1												1	2.22
Struck by prop,									1				1	2.22
Fell from chute,											1		1	2.22
Totals,	4	3	3	2	3	8	1	3	8	4	3	3	45	100.00
Causes of Accidents Outside														
Cars,		1		1		1			1				4	44.45
Machinery,		1				2							3	33.33
Struck by frozen culm,		1											1	11.11
Fall of clay,				1									1	11.11
Totals,		3		2		3			1				9	100.00
Grand totals inside and outside,	4	3	3	4	3	11	1	3	9	4	3	3	54	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,					1								1
Miners,	3		1	1	2			1	3	1		1	13
Miners' laborers,					1			2	1		1		5
Drivers and runners,			1			1							2
Machine runners,			1										1
Engineers,											1		1
Totals,	3		3	1	4	1		3	4	1	2	1	23
Outside													
Blacksmiths and carpenters,					1	1							2
Jig runners,							1						1
Laborers,	1					1						1	3
Totals,	1				1	2	1					1	6
Grand totals inside and outside,	4		3	1	5	3	1	3	4	1	2	2	29

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,											1		1
Miners,	1	2	3	2	1	8	1	3	6	2	1	2	32
Miners' laborers,									2	1		1	4
Drivers and runners,	1				2								3
Company men,	2										1		3
Patchers,		1								1			2
Totals,	4	3	3	2	3	8	1	3	8	4	3	3	45
Outside													
Blacksmiths and carpenters,		1											1
Topmen,		1											1
Laborers,		1		2		3			1				7
Totals,		3		2		3			1				9
Grand totals inside and outside,	4	6	3	4	3	11	1	3	9	4	3	3	54

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2				2	1	1	1	2	1	2		12
Welsh,	1												1
Hungarian,									1				1
Italian,	1		2		1								4
Slavonian,												1	1
Lithuanian,			1	1				1				1	4
Austrian,					2			1	1				4
Greek,						2							2
Totals,	4		3	1	5	3	1	3	4	1	2	2	29

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2		2		2			5		2	2	16
Welsh,	1				1	1		1					4
Irish,		1				1							2
German,	1					1							2
Polish,			1	1	1	2				1	1		7
Hungarian,				1			1						2
Italian,						1							1
Slavonian,	1	2	1			1				2		1	8
Lithuanian,		1	1			2			2				6
Austrian,					1			1	2				4
Russian,								1		1			2
Totals,	4	6	3	4	3	11	1	3	9	4	3	3	54

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Wadesville Colliery:															
Wadesville,	Shaft,	Gaseous,	Fan,	21	7.0	6.0	76	1.4			9	81,465	51,250	83,075	
Wadesville,	Shaft,	Gaseous,	Fan,	21	7.0	6.0	76	1.4			9	70,195	49,140	72,780	
Wadesville,	Slope,	Non-gas.,	Fan,	8	.32	.27	160	.5	Guibal,	Steam,	2	11,195	10,940	11,375	553
Wadesville,	Slope,	Non-gas.,	Fan,	5			120	.3			1	7,750	7,050	7,800	
Wadesville,	Slope,	Gaseous,	Fan,	8	36.0	.28	87	.4			2	14,000	7,995	14,128	
Otto Colliery:															
Otto,	Shaft,	Gaseous,	Fan,	18	6.0	5.6	67	.3			13	117,270	49,979	122,068	
Otto,	Slope,														
Otto,	Drift,	Gaseous,	Fan,	15	5.0	3.5	94	1.	Guibal,	Steam,	8	57,140	28,980	57,710	487
Otto,	Drift,	Non-gas.,	Fan,	12	4.2	3.6	60	.9			1				
Pine Knot Colliery:															
Pine Knot,	Shaft,	Gaseous,	Fan,	18	6.0	5.6	50	1.2	Guibal,	Steam,	5	18,300	12,180	23,200	194
Pine Knot,	Shaft,	Gaseous,	Fan,	18	6.0	5.6	50	1.2			10	26,160	16,620	32,660	
Thomaston Colliery:															
Thomaston,	Slope,	Gaseous,	Fan,	18	6.0	5.2	65	.3			6	74,164	68,688	79,795	
Thomaston,	Slope,	Gaseous,	Fan,	18	6.0	5.2	76	.4	Guibal,	Steam,	6	55,733	50,283	61,408	226
Thomaston,	Drift,	Non-gas.,	Fan,	12	4.2	3.5	80	.6			1	41,000	27,000	41,200	

Phoenix Park Colliery:														
Phoenix Park,	Slopes, --	Gaseous,	Fan,	21	7.0	6.0	80	1.6	Guibal, --	Steam,	8	84,110	53,540	96,400	397
Phoenix Park,			Fan,	15	5.0	3.5	95	1.4			8	50,000	32,700	53,675	
Phoenix Park,			Fan,	15	5.0	3.5	40	.4			3	23,850	19,450	24,375	
Glendower Colliery:															
Glendower,	Slope, ---	Gaseous,	Fan,	18	5.5	4.6	76	1.8	Guibal, --	Steam,	18	88,960	68,640	89,980	247
Glendower,	Slope, ---	Gaseous,	Fan,	21	6.0	5.6	80	1.8			8	81,960	42,300	82,700	
Glendower,	Drift, ----	Non-gas.,	Fan,	15	5.0	3.5	46	4.0			2	45,900	27,300	46,080	
John Veith Colliery:															
John Veith,	Shaft, ----	Gaseous,	Fan,	15	5.0	4.6	72	.2	Guibal, --	Steam,	8	27,600	14,307	21,448	173
John Veith,	Shaft, ----	Gaseous,	Fan,	15	5.0	4.6	72	2.0			9	36,700	20,006	37,680	
St. Clair Coal Co.															
St. Clair Colliery:															
St. Clair,	Shaft, ----	Non-gas.,	Natural,	------	------	------	------	------							
St. Clair,	Tunnel, --	Non-gas.,	Natural,	------	------	------	------	------							
St. Clair,	Slope, ---	Gaseous,	2 Fans, --	14	5.0	3.6	95	1.4	Guibal, --	Steam, ----	8	110,040	95,300	115,180	465
				16	5.0	5.0	65	.5							
Lytle Coal Co.															
Lytle Colliery:															
Lytle,	Shaft, ----	Gaseous,	2 Fans, --	18	7.0	5.1	90	2.2	Guibal,	Steam, ----	22	238,450	114,675	271,140	554
				18	7.0	5.1	94	2.1							
Lytle,	Slope, ---	Gaseous,	Fan,	18	7.0	5.5	100	2.1							
Lytle,	Slope, ---	Gaseous,	Fan,	20	7.0	5.0	95	2.0							
Pine Hill Coal Co.															
Pine Hill Colliery:															
Pine Hill,	Shaft, ----	Gaseous,	Fan,	18	4.0	4.0	80	.6	Guibal, --	Steam, ----	31	217,805	114,325	227,035	420
Pine Hill,	Slope, ---	Gaseous,	2 Fans, --	20	6.0	6.0	90	.9	Guibal, --	Steam, ----					
				12	4.6	4.0	120	1.0	Guibal, --	Electricity,					
Pine Hill,	Drift, ----	Non-gas.,	Fan,	16	4.6	4.1	90	2.5	Guibal, --	Electricity,					
Oak Hill Coal Co.															
Oak Hill Colliery:															
Oak Hill,	Shaft, ----										11	91,000			476
Oak Hill,	Slope, ---	Gaseous,	Fan,	24	8.3	6.4	70	2.6	Guibal, --	Steam, ----	4	7,580	113,000	118,000	
Oak Hill,	Slope, ---										2	5,640			
Oak Hill,	Drift, ----	Gaseous,	Fan,	8	3.0	3.2	210	1.7	Stine, ---	Steam, ----	2	10,000	18,000	20,000	
Oak Hill,	Drift, ----	Gaseous,	Fan,	8	3.0	3.2	210	1.7			2	7,000	6,500	7,200	
Buck Run Coal Co.															
Buck Run Colliery:															
Buck Run,	Slope, ---	Gaseous,	Fans, ----	12	4.0	4.0	95	1.6	Vulcan, -	Steam, ----	11	102,000	95,000	110,000	332
				15	6.0	5.0	95	1.7							
Buck Run,	Slope, ---	Gaseous,	Fan,	16	4.0	5.0	95	2.0							

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Darkwater Coal Co.															
Newcastle Colliery:															
Newcastle,	Slope,	Gaseous,	Fan,	20	6.0	6.0	80	1.1	Vulcan,	Steam,	16	28,000	25,100	30,000	133
Newcastle,	Slope,	Gaseous,	Fan,	8	4.0	3.0	90	1.0	Guibal,	Steam,					
Newcastle,	Drift,	Non-gas.,													
John H. Davis Co.															
Ellsworth Colliery:															
Ellsworth,	Slope,	Non-gas.,	Fan,	6	1.8	1.1	255	.5	Guibal,	Steam,		9,000	8,500	9,200	41
White and Co.															
Howard Colliery:															
Howard,	Slope,	Gaseous,	Fan,	12	4.2	3.4	70	1.0	Guibal,	Steam,	1	12,000	11,000	14,000	70
Howard,	Slope,	Gaseous,	Fan,	10	3.0	3.8	60	1.0			1	10,000	9,100	11,000	
Butcher Creek Coal Co.															
Laurel Run Colliery:															
Laurel Run,	Drift,	Non-gas.,	Natural,									*			27
Black Heath Coal Co.															
Black Heath Colliery:															
Black Heath,	Drift,	Non-gas.,	Natural,									*			7

*Ventilation irregular and liable to change one hour after being measured.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.						
Wadesville,						
Otto,						
Pine Knot,						
Thomaston,	Schuylkill,	W. J. Richards,	Pottsville,	Reese Tasker,	Pottsville,	Philadelphia and Reading
Phoenix Park,						
Glendower,						
John Veith,						
Anchor Washery,						
St. Clair Coal Co.						
St. Clair,	Schuylkill,			W. T. Smythe,	Pottsville,	Philadelphia and Reading
St. Clair Washery,						
Lytle Coal Co.						
Lytle,	Schuylkill,	R. A. Quin,	Wilkes-Barre,	D. V. Randall,	Minersville,	Pennsylvania
Pine Hill Coal Co.						
Pine Hill,	Schuylkill,			G. M. Keiser,	Minersville,	Pennsylvania
Oak Hill Coal Co.						
Oak Hill,	Schuylkill,			Jacob Britton,	Minersville,	Philadelphia and Reading
Buck Run Coal Co.						
Buck Run,	Schuylkill,	James B. Neale,	Minersville,	John Conway,	Minersville,	Philadelphia and Reading
Darkwater Coal Co.						
Newcastle,	Schuylkill,	James B. Neale,	Minersville,	John Conway,	Minersville,	Pennsylvania
Mt. Hope Coal Co.						
Mt. Hope,	Schuylkill,	I. D. Beahme,	Port Carbon,			Philadelphia and Reading

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
John H. Davis Co. Ellsworth,	Schuylkill,	John H. Davis,	St. Clair,			Philadelphia and Reading
White and Co. Howard,	Schuylkill,	Richard White,	Pottsville,			Philadelphia and Reading
Butcher Creek Coal Co. Laurel Run,	Schuylkill,	L. J. Whims,	St. Clair,			Philadelphia and Reading
Black Heath Coal Co. Black Heath,	Schuylkill,	James Scott,	Minersville,			Teams and Pennsylvania

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.													
Wadesville,	Schuylkill,	284,098	29,515	1,085	314,698	271	840	1	3	61,775	35,344	45,031	84
Otto,		213,297	66,306	2,007	281,610	273	686	1	4	29,350	64,959	45,031	84
Pine Knot,		184,926	55,747	518	240,291	277	450			9,350	113,220	21,281	49
Thomaston,*							272	2					
Phoenix Park,		160,091	29,253	1,797	191,141	246	577	2	4		12,261	67,157	75
Glendower,		117,140	19,447		136,587	276	316	1	4	63,400	45,413	16,071	41
John Veith,†		50,057			50,057		206	2			14,794	27,554	17
		1,008,709	200,268	5,407	1,214,384		3,347	9	15	163,875	285,991	222,125	350
Anchor Washery,		49,961	4,435		54,396	106	61		1		75		
Totals,		1,058,670	204,703	5,407	1,268,780		3,408	9	16	163,875	286,066	222,125	350
St. Clair Coal Co.													
St. Clair,	Schuylkill,	247,419	65,000	6,756	319,175	183	672	3	5	160,825	17,032		48
St. Clair Washery,		69,857	3,000	653	73,510	115	28						
Totals,		317,276	68,000	7,409	392,685		700	3	5	160,825	17,032		48

†Coal prepared at Pine Knot.
*Coal prepared at Otto

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lytle Coal Co.													
Lytle,	Schuylkill,	256,530	76,354	8,887	341,771	259	781	5	11	----------	125,975	----------	78
Pine Hill Coal Co.													
Pine Hill,	Schuylkill,	297,549	36,000	1,073	334,622	295	600	1	2	92,500	79,100	14,100	30
Oak Hill Coal Co.													
Oak Hill,	Schuylkill,	290,508	30,000	3,732	324,240	275	719	7	4	2,900	97,350	14,325	60
Buck Run Coal Co.													
Buck Run,	Schuylkill,	213,446	19,000	871	233,317	288	453	----	7	89,525	85,777	----------	32
Darkwater Coal Co.													
Newcastle,	Schuylkill,	89,638	13,600	192	103,430	242	211	2	4	----------	37,500	----------	12
Mt. Hope Coal Co.													
Mt. Hope,	Schuylkill,	71,910	6,000	8,365	86,275	233	164	1	1	2,125	10,000	----------	12
John H. Davis Co.													
Ellsworth,	Schuylkill,	29,821	3,800	556	34,177	298	94	----	----	----------	15,000	----------	7

White and Co.													
Howard,	Schuylkill,	21,493	7,500	456	29,449	271	110	----	3	1,250	9,600	----------	12
Butcher Creek Coal Co.													
Laurel Run,	Schuylkill,	18,162	4,252	86	22,500	212	59	1	1	300	3,750	----------	6
Black Heath Coal Co.													
Black Heath,	Schuylkill,	277	202	1,496	1,975	297	11	----	----	----------	----------	1,200	2
Grand totals,		2,665,280	469,411	38,530	3,173,221	--------	7,310	29	54	513,300	767,150	251,750	649

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	.....	.....	69	11,850	11,850	13	.....	.....	205	27,662	17	23,738	9,702	2	7
St. Clair Coal Co.,		.....	.....	20	3,100	3,100	6	.....	5	22	.....	2	1,500	1,500	4	.....
Lytle Coal Co.,		.....	.....	24	3,650	3,650	1	.....	1	21	7,322	Tanks	2,000	1,566	2	3
Pine Hill Coal Co.,		.....	.....	3	2,250	2,250	.....	.....	4	30	2,040	4	13,000	3,000	2	.....
Oak Hill Coal Co.,		.....	.....	5	2,500	2,500	5	.....	.....	21	1,600	2	2,000	1,100	.....	.....
Buck Run Coal Co.,		.....	.....	8	1,500	1,500	1	.....	3	26	1,020	3	1,800	400	1	1
Darkwater Coal Co.,		.....	.....	4	600	600	1	.....	.....	16	730	3	4,500	800	.....	1
Mt. Hope Coal Co.,		.....	.....	8	625	625	2	.....	.....	9	500	.....	.....	.....	.....	.....
John H. Davis Co.,		.....	.....	5	500	500	.....	.....	.....	6	210	2	1,350	500	.....	1
White and Co.,		.....	.....	4	575	575	.....	.....	.....	.....	.....	3	1,500	750	.....	.....
Butcher Creek Coal Co.,		.....	.....	4	300	300	.....	.....	.....	11	300	3	.....	.....	.....	.....
Black Heath Coal Co.,		.....	.....	1	100	100	.....	.....	.....	2	60	.....	.....	.....	.....	.....
Totals,	.....	.....	.....	155	27,550	27,550	29	.....	13	369	41,444	39	51,388	19,318	11	13

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	6	42	----	771	391	136	3	17	421	488	2,275	------	14	52	169	114	62	21	701	1,133	3,408
St. Clair Coal Co.,		2	----	4	240	60	30	25	4	------	100	465	1	3	27	32	40	19	4	109	235	700
Lytle Coal Co.,		1	3	11	215	84	45	7	------	28	160	554	1	1	15	38	19	61	7	85	227	781
Pine Hill Coal Co.,		1	2	7	204	86	58	8	6	40	8	420	1	1	10	19	52	15	5	77	180	600
Oak Hill Coal Co.,		1	1	8	275	78	24	2	3	76	8	476	1	1	26	22	71	4	5	113	243	719
Buck Run Coal Co.,		1	1	5	152	66	12	9	3	80	3	332	2	1	7	13	15	1	6	76	121	453
Darkwater Coal Co.,		1	----	1	41	35	10	1	3	39	2	133	2	1	5	9	11	1	1	48	78	211
Mt. Hope Coal Co.,		1	1	1	11	6	3	------	------	50	------	73	1	1	5	12	6	2	1	63	91	164
John H. Davis Co.,		1	----	1	16	10	3	------	2	8	------	41	1	1	2	5	8	3	1	32	53	94
White and Co.,		1	----	1	33	16	4	------	2	6	7	70	1	1	4	10	6	2	1	15	40	110
Butcher Creek Coal Co.,		1	----	----	7	17	2	------	------	------	------	27	1	1	2	5	1	2	1	19	32	59
Black Heath Coal Co.,		----	----	----	2	4	1	------	------	------	------	7	1	----	----	1	2	----	----	------	4	11
Totals,		17	50	39	1,967	853	328	55	40	748	776	4,873	13	26	155	335	345	172	53	1,338	2,437	7,310

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	23	21	27	22	24	26	16	17	19	25	26	23	269
St. Clair Coal Co.,		25	22	10	----	----	----	6	24	25	23	24	24	183
Lytle Coal Co.,		24	20	21	21	23	25	14	22	23	20	23	23	259
Pine Hill Coal Co.,		24	24	27	22	25	26	23	26	25	26	24	23	295
Oak Hill Coal Co.,		24	23	24	20	24	26	17	24	23	24	23	23	275
Buck Run Coal Co.,		24	24	26	22	25	26	20	26	24	24	24	23	288
Darkwater Coal Co.,		20	22	17	17	17	24	20	22	22	18	22	21	242
Mt. Hope Coal Co.,		19	17	21	18	21	21	16	19	21	20	20	20	233
John H. Davis Co.,		24	24	27	24	25	25	23	27	25	24	25	25	298
White and Co.,		24	22	22	25	22	19	23	24	21	24	24	21	271
Butcher Creek Coal Co.,		16	22	22	18	22	14	12	8	16	20	20	22	212
Black Heath Coal Co.,		25	23	25	24	25	26	23	25	26	26	25	24	297

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	James Campion,	American,	Laborer,	23	M.	1		Laurel Run,		Fatally injured by a piece of clay rolling on him in stripping. Died same day. Outside.
9	Louis Adams,	Welsh,	Miner,	41	M.	1	5	Phoenix Park,		Killed by premature blast at face of gangway. He had charged hole and was punching coal beneath it when it exploded.
18	Andrew Grandy,	American,	Miner,	40	M.	1	2	Pine Hill,		Fatally injured by fall of slate at gangway face. He was working with the pick under it when it fell on him. Died January 19.
27	Frank Gallo,	Italian,	Miner,	28	S.			Oak Hill,		Killed by blast while igniting three holes in face of rock crosscut. He delayed too long.
Mar. 27	Peter Wright,	Lithuanian,	Driver,	21	S.			Wadesville,	Schuylkill,	Killed by being crushed by cars on gangway. While coming out with trip of mine cars in some unknown manner he fell beneath the cars.
28	Louis Magrolle,	Italian,	Machine runner,	40	M.	1	5	Newcastle,		Killed by blast in face of tunnel. They fired two holes and then went back to face of tunnel. They were found near face of tunnel partly covered with rock from blast. They used fuse in blasting.
	Paul Salvateer,	Italian,	Miner,	26	S.					
April 6	Frank Ronseage,	Lithuanian,	Miner,	44	S.			Oak Hill,		Fatally injured by fall of slate while working near face of breast.
May 8	John Plugie,	Italian,	Laborer,	24	S.			Lytle,		Fatally injured by fall of slate at gangway face while shoveling coal into car.
13	Sylvester Yancoskie,	Austrian,	Miner,	38	M.	1		Lytle,		Fatally injured by fall of slate while making place to stand prop. Died May 14.
17	Joseph Gulda,	Austrian,	Miner,	45	M.	1	3	Lytle,		Killed by fall of coal in breast.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
May 17	John Moran,	American,	Carpenter,	40	S.			St. Clair,		Killed by falling from platform in new breaker. Outside.
26	John Reilly,	American,	Fire boss,	34	S.			John Veith,		Killed by being caught between mine car and gangway timber while helping to put car on track.
June 10	Steve Krouchison,	Greek,	Laborer,	38	M.	1	4	Phoenix Park,		Hand injured by being pinched between mine car wheel and block while blocking car. Died of tetanus June 19. Outside.
15	Theodore Wasle,	Greek,	Driver,	22	S.			John Veith,		Fatally injured by a kick from a mule. Died June 24.
17	Charles Sturdevant,	American,	Carpenter,	28	S.			St. Clair,		Fatally injured by falling from block and tackle to ground while hoisting timber at breaker. Died June 19. Outside.
July 20	George Harris,	American,	Jig-runner,	17	S.			St. Clair,	Schuylkill,	Fatally injured. While repairing shaker screens in breaker his head was caught between spring boards from which shakers are suspended. Died the same day. Outside.
Aug. 17	John Knott,	Austrian,	Laborer,	30	M.	1		Lytle,		Killed by coming in contact with electric wire while erecting set of timber on gangway.
18	Samuel Reifsnyder,	American,	Miner,	52	M.	1	4	Thomaston,		Killed by fall of coal at face while shoveling in pillar chute.
23	Joseph Yuske,	Lithuanian,	Laborer,	22	S.			Oak Hill,		Killed by fall of coal at face of gangway.
Sept. 1	Henry Donnelly,	American,	Miner,	38	S.			Oak Hill,		Killed by fall of slate while skipping pillar.
1	Michael Wrenko,	Hungarian,	Laborer,	40	M.	1		Otto,		Killed by fall of slate at face of gangway.
19	John Gross,	Austrian,	Miner,	35	M.	1		Lytle,		Killed by fall of slate while removing pillar stump.
27	John King,	American,	Miner,	35	M.	1		Glendower,		Fatally injured by fall of coal at face of breast. Died September 29.

Oct.	5	Bert Barton, ...	American,..	Miner, ...	33	S.	....	....	Oak Hill, ...		Killed by a blast fired in heading in adjoining breast.
Nov.	13	Patrick Dullard, ...	American,..	Laborer, ...	29	M.	1	3	Thomaston, ...		Fatally injured by falling down slope while repairing track. Died the same day.
	24	Henry Dressler, ...	American,..	Engineer, ...	36	M.	1	5	Oak Hill, ...		Fatally injured by being caught between engine brake wheel and rib of gangway. While coming out of drift with trip of cars the engine jumped the track. Died November 25.
Dec.	1	John Toso, ...	Slavonian,	Laborer, ...	65	M.	1	....	Mt. Hope, ...	Schuylkill, ...	Killed by falling off bench of coal, a distance of 7 feet, in attempting to get out of way of a fall of clay on stripping. He fractured his spine. Outside.
	20	Charles Berlavage, ..	Lithuanian,	Miner, ...	33	S.	....	....	Oak Hill, ...		Killed by fall of slate. He drilled and charged hole on pillar and was in the act of pulling down a loose piece of slate with drill, before firing, when it fell on him.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	James Doyle,	American,	Company man,	28	M.	Phoenix Park,		Leg fractured. While placing support in front of slush tank it broke and struck him.
18	Peter Kriper,	Slavonian,	Company man,	26	M.	Buck Run,		Leg fractured by being struck by car. The side hook of car pulled loose while ascending the slope and the car ran away.
19	Otis Losch,	German,	Miner,	32	S.	Buck Run,		Hands injured by explosion of blast while drilling hole that had missed fire.
20	William Edwards,	Welsh,	Driver,	21	S.	St. Clair,		Leg fractured by being dragged by mine car.
Feb. 2	Charles Pleskukus,	Lithuanian,	Miner,	37	S.	Lytle,		Hands and face injured while attempting to withdraw charge of blast that failed to explode
8	Thomas Daley,	Irish,	Miner,	50	M.	Newcastle,	Schuylkill,	Face and hands burned by gas while igniting blast.
15	William Sands,	American,	Carpenter,	32	M.	Newcastle,		Arm fractured by band saw becoming loose and falling on his arm. Outside.
23	Laughlin Burns,	American,	Topman,	30	S.	Lytle,		Hips squeezed by mine car on top of shaft. Outside.
24	George Fabic,	Slavonian,	Laborer,	51	M.	Anchor Washery,		Leg fractured by being struck by frozen culm on culm bank. Outside.
25	Joseph Kremi,	Slavonian,	Patcher,	17	S.	St. Clair,		Foot crushed. He fell on rail and car wheel passed over foot.
March 1	Walter Dugan,	Lithuanian,	Miner,	23	M.	Buck Run,		Leg fractured. A piece of coal fell in breast and caught his foot against prop.
28	Michael Machuski,	Polish,	Miner,	39	M.	Buck Run,		Skull fractured by being struck by coal from blast through heading in adjoining breast.

March	28	J. Chuffeck,	Slavonian,	Miner,	48	M.	Newcastle,		Shoulder blade fractured by a piece of slate that fell on him while pulling down collar of old set of timber.
April	4	John Wonchock,	Hungarian,	Laborer,	40	S.	Mt. Hope,		Leg and chest bruised by being struck by fall of clay while working on stripping bank. Outside.
	11	Gasner Rozitus,	Polish,	Miner,	55	M.	Oak Hill,		Back injured by fall of coal in chute.
	14	Charles Homer,	American,	Laborer,	37	S.	Oak Hill,		Leg fractured by being bumped between mine cars while attempting to separate them while they were in motion. Outside.
	15	Joseph Shoffstall,	American,	Miner,	29	M.	Phoenix Park,		Back injured by fall of coal while working on pillar.
May	18	Michael Zerencluic,	Austrian,	Driver,	21	S.	Lytle,		Hip fractured. A mule knocked him down and he was caught between mine car and timber.
	25	Peter Bunto,	Polish,	Driver,	40	S.	Laurel Run,		Head injured by being caught between car and timber in gangway.
	28	William Edwards,	Welsh,	Miner,	50	S.	Otto,		Leg fractured by fall of slate while prying a piece of coal loose at face of breast.
June	9	Frank Betalk,	Polish,	Miner,	28	S.	Pine Hill,		Leg fractured by fall of coal while removing slabs from breast manway.
	10	Richard Jones,	American,	Miner,	27	M.	Howard,		Head bruised by being struck by coal from blast.
	13	Anthony Miller,	Slavonian,	Miner,	27	S.	Buck Run,	Schuylkill,	Face and hands burned by explosion of gas in old breast from which he removed brattice.
		John Purcell,	American,	Miner,	41	M.	Buck Run,		Face and hands burned by explosion of gas while hunting for drill in breast.
	14	Daniel Carza,	Italian,	Miner,	28	S.	Wadesville,		Leg fractured by being bumped between mine cars while trying to unhitch mule.
	16	Michael Bednus,	Polish,	Laborer,	43	M.	Lytle,		Body injured by being bumped by ash dumper. Outside.
	19	Henry Kimelwright,	German,	Miner,	26	S.	Wadesville,		Back injured by fall of slate near gangway face.
	21	Anthony Winconis,	Lithuanian,	Miner,	26	S.	Glendower,		Hands and face burned by explosion of gas. One of the men unscrewed his lamp to light it.
		Joseph Powser,	Lithuanian,	Miner,	26	S.			
	30	George Hughes,	Welsh,	Laborer,	22	S.	St. Clair,		Leg fractured
		William Donahoe,	Irish,	Laborer,	20	S.			Head injured. While removing machinery in breaker a pinion wheel fell on them. Outside.
July	14	John Banns,	Hungarian,	Miner,	38	S.	Otto,		Collar bone fractured by fall of coal while working at gangway face.
Aug	9	Edward Griffith,	Welsh,	Miner,	35	M.	New Castle,		Head and face injured by explosion of blast. He was tamping a blast containing dynamite when it exploded.
	22	Joseph Teronis,	Russian,	Miner,	29	M.	Lytle,		Face and hands burned by explosion of gas.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 23	Andrew Gress,	Austrian,	Miner,	32	M.	Lytle,		Leg fractured by fall of slate while pushing coal in breast.
Sept. 1	Charles Mitchell,	American,	Laborer,	22	S.	Pine Hill,		Chest squeezed by being bumped between mine cars. Outside.
13	Joseph Berger,	Austrian,	Miner,	28	M.	Otto,		Skull and rib fractured by prop falling on him.
18	John Robuck,	Austrian,	Laborer,	29	M.	Phoenix Park,		Leg fractured by fall of slate while assisting miner to stand set of timber.
26	Hugh Curran,	American,	Miner,	37	M.	Oak Hill,		Face and eyes injured.
	Michael Purcell,	American,	Miner,	40	M.			Arm fractured. They ran the mining needle into blast containing dynamite and black powder and the cap exploded.
28	Anthony Rumberger,	American,	Miner,	19	S.	Glendower,	Schuylkill,	Leg fractured by fall of slate while sinking prop hole near face of breast.
	Xiah Rumberger,	American,	Miner,	40	M.	Glendower,		Body bruised by fall of slate while sinking prop hole near face of breast.
30	Raymond Kulpbox,	Lithuanian,	Miner,	39	M.	Lytle,		Face and hands burned. While working in monkey airway they unscrewed safety lamp and ignited gas.
	Enoch Yocktis,	Lithuanian,	Laborer,	25	S.	Lytle,		
Oct. 3	Charles Serockman,	Slavonian,	Motor patcher,	28	M.	St. Clair,		Ribs fractured by being squeezed between mine cars he was coupling.
5	Thomas Lump,	Slavonian,	Laborer,	38	M.	Wadesville,		Leg and ribs fractured by fall of slate at gangway face.
20	Anthony McCarra,	Polish,	Miner,	26	M.	Lytle,		Arm fractured by fall of slate while holding prop in gangway.
21	Simon Koratkowski,	Russian,	Miner,	23	S.	Lytle,		Face and hands burned by explosion of gas. Fuse ignited the gas in chute.

Nov.	3	John Nevilles,	American,	Fire boss,	46	M.	Lytle,	Schuylkill,	Ribs fractured by falling under mine car.
	24	Alex. Olickshock,	Polish,	Miner,	23	M.	Otto,		Collar bone fractured by falling from chute to gangway.
	26	Henry Kensinger,	American,	Company man,	25	S.	Phoenix Park,		Leg fractured by falling under mine car while unhitching mule.
Dec.	8	Edward Moore,	American,	Laborer,	22	S.	Howard,		Hands and face burned by explosion of gas.
		Charles Johnson,	American,	Miner,	38	S.			
	20	Frank Slifea,	Slavonian,	Miner,	24	S.	Buck Run,		Leg fractured by falling down breast.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Wadesville, Otto, Pine Knot, Thomaston, Glendower, Phoenix Park and John Veith.—Ventilation, drainage and condition as to safety, good.

ST. CLAIR COAL COMPANY

St. Clair.—Ventilation, drainage and condition as to safety, good.

LYTLE COAL COMPANY

Lytle.—Ventilation and condition as to safety, good; drainage fair.

PINE HILL COAL COMPANY

Pine Hill.—Ventilation and condition as to safety, good; drainage fair.

Shaft No. 3.—Level West: Condition as to safety, fair.

OAK HILL COAL COMPANY

Oak Hill.—Ventilation and condition as to safety, good; drainage fair. Considerable improvement has been made in the drainage, especially in No. 1 drift. The tunnel was skipped and track raised, which removed the water. Under the new management the condition of the colliery is very much improved.

BUCK RUN COAL COMPANY

Buck Run.—Ventilation and condition as to safety, good; drainage fair.

DARKWATER COAL COMPANY

Newcastle.—Ventilation and condition as to safety, good; drainage fair.

MT. HOPE COAL COMPANY

Mt. Hope.—Ventilation and condition as to safety, good; drainage fair.

JOHN H. DAVIS COMPANY

Ellsworth.—Ventilation, drainage and condition as to safety, good.

WHITE AND COMPANY

Howard.—Ventilation and condition as to safety, good; drainage fair.

BUTCHER CREEK COAL COMPANY

Laurel Run.—Ventilation and drainage fair; condition as to safety, good.

BLACK HEATH COAL COMPANY

Black Heath.—Ventilation and drainage fair; condition as to safety, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Wadesville Colliery.—The Primrose slope has been sunk to the 4th level 300 feet and a gangway turned west. The slope is now being continued to the 5th lift.

A landing has been made in the Holmes vein in the Tender shaft at the second lift Bottom Split of Primrose plane.

A locomotive road, 1,700 feet long, was laid, connecting the Vulcan slope track to two planes, one 1,400 feet long and the other 900 feet long. A track 1,600 feet long connects the latter or West Primrose plane to Beechwood culm banks. A boiler and hoisting plant were installed, the latter operating both planes.

A tunnel 410 feet long, was driven from the 2nd lift Holmes slope north to the Top and Bottom Split of the Mammoth vein. Gangways are being turned east and west.

A tunnel 160 feet long was driven north from the 2nd lift of the Vulcan slope to the Four Foot vein.

Two ventilating bore holes, 10 inch diameter, 1,530 feet apart, have been drilled from the surface, tapping old Beechwood workings. A rock hole is being driven from the head of No. 33 chute, West Skidmore gangway 2nd lift, Skidmore plane, and will connect with workings about midway between the bore holes.

Work on the power plant mentioned in last year's report in No. 8 breast, East Skidmore gangway shaft level, is still in progress.

Otto Colliery.—Completed: Steam line from bore hole to shaft engines.

Twenty-eight by forty-eight inch engines at coal shaft.

Car hoist 7th lift of shaft.

Steel head frame.

Tunnel Skidmore slope level to Little vein.

Tunnel Bottom Bench to Middle Split.

Extension of Skidmore slope. Second outlet to White Ash slope.

Tunnel from Bottom Bench to foot of Skidmore slope.

In progress: Extending White Ash slope.

Pine Knot Colliery.—Completed Inside: Opening 1st level and driving tunnels.

Tunnel from East Skidmore gangway to Daniel vein North dip No. 1 shaft.

Tunnel from West Skidmore gangway to Daniel vein North dip No. 1 shaft.

Air tunnel from Crosby North dip to Buck Mountain North dip 1st level No. 2 shaft.

Haulage tunnel Skidmore North dip to Buck Mountain North dip 1st level No. 1 shaft.

Air tunnel from East Skidmore North dip to Daniel vein North dip No. 1 shaft.

No. 2 shaft, engines and engine house.

Concreting dam in Jugular tunnel, Ellsworth Colliery.

Haulage tunnel Crosby South dip to Skidmore South dip 1st level No. 2 shaft.

In Progress Inside: Air tunnel West Skidmore North dip to Daniel vein North dip No. 1 shaft.

Completed Outside: Grading and laying tracks top of No. 2 shaft. Erecting steel head frame top of No. 2 shaft.

In Progress.—Outside: Second setting of two Stirling boilers and house.

Thomaston Colliery.—Completed Inside: Air tunnel from Crosby North dip to Skidmore North dip lower level Lelar slope.

Drainage tunnel from West North dip Primrose gangway to Crosby vein, 1st level Crosby slope.

Continuation of main haulage tunnel lower level Lelar slope from Seven Foot to Buck Mountain.

In Progress Inside: Haulage tunnel from E. N. dip Skidmore to North dip Daniel, lower level Lelar slope.

Continuation of air tunnel from Skidmore to Buck Mountain lower level, Lelar slope.

Air tunnel from East Skidmore North dip to Daniel vein North dip lower level, Lelar slope.

Driving extension of Crosby slope from 2nd to 3rd lift for second outlet to Lelar slope.

Glendower Colliery.—Completed Inside: Basin tunnel from South dip Skidmore vein to North dip Buck Mountain vein, western slope workings.

Tunnel from South dip Skidmore vein to South dip Buck Mountain vein, western slope workings.

Tunnel from South dip Daniel vein to South dip Lelar vein, 2nd landing of basin slope, western slope workings.

Concrete stable in Lelar vein North dip, Taylorsville level.

In Progress Inside: Basin slope from 2nd landing to Glendower workings, at western slope workings.

Tunnel from North dip Skidmore vein to North dip Daniel vein at water level tunnel.

Tunnel from South dip Daniel vein to South dip Buck Mountain vein, 2nd level basin slope, western slope workings.

Completed Outside: 15-foot force fan, electrically driven, at water level tunnel, and power plant for same.

Phoenix Park Colliery.—Completed: No. 2 air shaft, second outlet to No. 6 slope Tracy vein.

Steam line No. 6 Tracy slope to air shaft.

Extension of No. 2 underground slope.

No. 6 slope, engines and foundation.

Fifteen-foot exhaust fan, No. 2 air shaft.

In Progress : No. 6 Tracy slope. No. 7 Tender slope.

Standing: Extension of Peach Mountain slope.

Anchor Washery destroyed by fire March 4 and is being rebuilt.

ST. CLAIR COAL COMPANY

St. Clair breaker was partly destroyed by fire March 17. It has been rebuilt and commenced operations July 24.

LYTLE COAL COMPANY

Lytle Colliery.—Outside: 450 H. P. Coatesville boilers.

Coal plane engine, shaft to breaker.

New feed water heating system.

Four stove coal jigs.

Twelve broken, egg and stove coal shakers.

Barney plane for empty cars, breaker to shaft.

Inside: Tunnels, 2nd level, 19 1-3 yards; 3rd level, 21⅔ yards, 4th level, 115 1-3 yards; 5th level, 309 1-3 yards; 6th level, 229 yards. No. 5 slope, 5th to 6th level in Primrose vein, 100 H. P. Flory electric hoist.

PINE HILL COAL COMPANY

Pine Hill Colliery.—New lift, Buck inside slope on drift, 375 feet. New inside slope, Black Heath shaft, 340 feet. Red Ash tunnel, shaft, third lift, 100 feet. Skidmore to Black Heath tunnel, 58 feet. Air tunnel from haulage tunnel to West Seven Foot monkey, 30 feet. Main airway, Buck, from third level, 380 feet. New rock engine room and electric hoist, 50 feet.

OAK HILL COAL COMPANY

Oak Hill Colliery.—One-story brick lamp house 18 by 20 feet with concrete floor. One-story brick pump house 20 by 18 feet, in which two pumps have been installed for pumping water from the mine to the breaker. A new 10-inch iron column pipe was installed from this pump house to the top of the breaker, taking the place of the wooden line. A concrete foundation, 40 feet 7 inches by 27 feet 8 inches, for a supply office was made during the year. Considerable repairs and changes were made in the breaker. All the old jigs and spirals were removed and 8 new jigs and 3 new slatepickers installed. A concrete basin 28 feet by 28 feet, 8 feet deep, was made for the purpose of storing mine water for breaker use.

Inside: The shaft was retimbered from the rock to the surface, a distance of 70 feet. A tunnel 96 feet long was driven from the 5th level West Holmes to the Primrose gangway, and an air tunnel was started from the airway to the 5th level West Holmes gangway to the Primrose vein and has been driven a distance of 38 feet. A new hospital was constructed in the rock of the 4th level in the shaft workings. A fireproof stable made of concrete was started on the third level No. 1 slope. A tunnel was started in the third level No. 1 slope from the West Black Heath gangway to tap the water in the old working from Hill's slope, and has been driven 30 feet. Two tunnels, each 40 feet long, were driven from the third level West Black Heath gangway No. 1 slope to the Middle Split seam. Two feet of top rock taken down in No. 1 drift for a distance of 225 feet and the road raised, which improves the drainage in this tunnel. Beginning at the mouth there were 25 sets of steel mine frames put in No. 2 slope. A tunnel has been driven from the 3rd level West Black Heath gangway No. 3 slope to the Buck Mountain seam, a distance of 110 yards. 110 feet additional sunk in the No. 3 slope Black Heath vein. A balance plane 360 feet long was made in the Buck Mountain seam from No. 2 drift to the old counter. A 7-ton gasoline locomotive has been installed in No. 2 drift. Two oil burners have been installed in the drifts taking the place of the coal-burning locomotives.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held March 21 and 22, in Union Hall, Pottsville. The Board of Examiners was composed of the following: Michael J. Brennan, Mine Inspector, Pottsville; James B. Neale, Superintendent, Buck Run; Charles Larkin, Miner, Branchdale; Timothy Brennan, Miner, Heckscherville. The following applicants passed a satisfactory examination and were granted certificates:

Mine Foremen

Walter Poticher, Peter Keifer, John Salen and Archibald Miller, Minersville; Patrick Smith, Wade; William Davis, St. Clair.

Assistant Mine Foremen

Thomas Campion, James Keating, Heckscherville; Wilfred Miller, James McCabe, Joseph P. Dando, Minersville; John Brennan, Zerbe; Hugh Curran, Isaac Charles, Duncott.

TWENTIETH DISTRICT

SCHUYLKILL AND DAUPHIN COUNTIES

Lykens, Pa., February 7, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Report as Inspector of Mines of the Twentieth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,
CHARLES J. PRICE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	7
Number of mines,	28
Number of mines in operation,	26
Number of tons of coal shipped to market,	1,946,553
Number of tons used at mines for steam and heat,	381,686
Number of tons sold to local trade and used by employes,	35,844
Number of tons produced,	2,364,083
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	4,153
Number of persons employed outside,	1,670
Number of fatal accidents inside of mines,	23
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	56
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside,	102,786
Number of persons employed per fatal accident inside,	181
Number of persons employed per fatal accident outside,	1,670
Number of persons employed per non-fatal accident inside,	74
Number of persons employed per non-fatal accident outside,	209
Number of wives made widows,	16
Number of children made orphans,	35
Number of steam locomotives used inside of mines,	.....
Number of steam locomotives used outside,	18
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	21
Number of electric motors used outside,	4
Number of fans in use,	23
Number of furnaces in use,	.....
Number of gaseous mines in operation,	25
Number of non-gaseous mines in operation,	1
Number of new mines opened,	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,240,154
Lehigh Valley Coal Company,	278,426
Summit Branch Mining Company,	845,503
Total,	2,364,083

Production by Counties

Schuylkill,	1,518,580
Dauphin,,	845,503
Total,	2,364,083

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	9	1	10	11	2	13	137,795	112,741	2,174	788	2,962	242	788	198	394
Lehigh Valley Coal Co.,	4	-------	4	4	1	5	69,606	69,606	449	132	581	112	-------	112	132
Summit Branch Mining Co.,	10	-------	10	41	5	46	84,550	20,622	1,530	750	2,280	153	-------	37	150
Totals and averages for district,	23	1	24	56	8	64	102,786	42,216	4,153	1,670	5,823	181	1,670	74	209

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	1	....	1	....	....	....	....	....	....	....	2	8.69
Falls of slate,	....	....	2	....	....	....	....	....	....	....	....	....	2	8.70
Falls of roof,	....	3	....	....	....	1	....	....	....	....	1	....	5	21.74
Mine cars,	....	....	....	2	....	....	....	....	....	1	....	1	4	17.39
Explosions of gas,	....	....	....	....	1	....	....	....	....	....	....	....	1	4.35
Blasts, premature and otherwise,	....	1	....	....	....	....	1	....	....	....	....	....	2	8.70
Falling into slopes, etc.,	....	1	....	....	....	....	....	....	....	1	....	1	3	13.04
Mules,	....	....	....	....	....	1	....	....	....	....	....	....	1	4.35
Rush of gob,	....	....	1	....	....	....	....	....	....	....	....	....	1	4.35
Struck by piece of coal,	1	....	....	....	1	....	....	....	....	....	....	....	2	8.69
Totals,	1	5	4	2	3	2	1	....	....	2	1	2	23	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	....	....	....	1	1	100.00
Totals,	....	....	....	....	....	....	....	....	....	....	....	1	1	100.00
Grand totals inside and outside,	1	5	4	2	3	2	1	....	....	2	1	3	24	.....

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	1	1	....	2	1	....	1	1	....	1	1	10	17.86
Falls of slate,	1	....	....	....	1	1	1	1	....	....	....	....	5	8.93
Falls of roof,	3	....	....	....	....	....	....	....	....	....	1	....	4	7.14
Mine cars,	....	....	....	....	2	....	1	2	1	....	....	1	7	12.50
Explosions of gas,	....	....	1	3	8	1	....	....	2	2	....	....	17	30.36
Blasts, premature and otherwise,	....	1	1	....	....	....	....	....	....	....	....	1	3	5.36
Falling into slopes, etc.,	....	....	....	1	....	....	....	....	....	....	....	....	1	1.79
Mules,	....	....	1	....	....	....	....	....	....	....	....	....	1	1.79
Machinery,	....	....	4	....	....	....	....	....	....	....	....	....	4	7.14
By falling,	....	....	1	....	....	....	....	....	....	....	....	....	1	1.79
Struck by timber,	....	....	1	....	....	....	....	....	....	....	....	....	1	1.78
Struck by piece of coal,	....	....	....	....	....	1	....	....	....	....	....	....	1	1.78
Struck by piece of slate,	....	....	....	....	....	....	....	....	....	1	....	....	1	1.78
Totals,	5	2	10	4	13	4	2	4	4	3	2	3	56	100.00
Causes of Accidents Outside														
Cars,	....	....	1	....	....	1	....	....	....	1	1	1	5	62.50
Struck by chain,	....	....	....	....	1	....	....	....	....	....	....	....	1	12.50
Struck by timber,	....	....	....	....	....	1	....	....	....	....	....	....	1	12.50
Struck by pipe,	....	....	....	....	....	....	....	....	....	1	....	....	1	12.50
Totals,	....	....	1	....	1	2	....	....	....	2	1	1	8	100.00
Grand totals inside and outside;	5	2	11	4	14	6	2	4	4	5	3	4	64	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	5	3	1	1	----	1	----	----	1	1	1	14
Miners' laborers,	1	----	1	----	----	1	----	----	----	1	----	----	4
Drivers and runners,	----	----	----	1	----	1	----	----	----	----	----	1	3
Bottommen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Rockmen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	1	5	4	2	3	2	1	----	----	2	1	2	23
Outside													
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	----	----	----	----	----	----	----	----	----	----	1	1
Grand totals inside and outside,	1	5	4	2	3	2	1	----	----	2	1	3	24

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,	----	----	----	----	----	----	----	1	----	----	----	----	1
Miners,	5	1	6	4	6	2	1	2	3	2	2	2	36
Miners' laborers,	----	1	3	----	----	1	----	----	----	----	----	----	5
Drivers and runners,	----	----	1	----	2	----	1	----	1	----	----	1	6
Loaders,	----	----	----	----	----	1	----	----	----	1	----	----	2
Rockmen,	----	----	----	----	3	----	----	----	----	----	----	----	3
Timbermen,	----	----	----	----	1	----	----	1	----	----	----	----	2
Machinists,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	5	2	10	4	13	4	2	4	4	3	2	3	56
Outside													
Engineers and firemen,	----	----	----	----	----	----	----	----	----	1	----	----	1
Roadmen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Runners,	----	----	----	----	----	----	----	----	----	----	----	1	1
Laborers,	----	----	1	----	----	2	----	----	----	1	1	----	5
Totals,	----	----	1	----	1	2	----	----	----	2	1	1	8
Grand totals inside and outside,	5	2	11	4	14	6	2	4	4	5	3	4	64

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	3	3	1	2	1	1	----	----	2	----	3	17
Polish,	----	----	----	1	1	1	----	----	----	----	----	----	3
Slavonian,	----	----	1	----	----	----	----	----	----	----	----	----	1
Lithuanian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Austrian,	----	2	----	----	----	----	----	----	----	----	----	----	2
Totals,	1	5	4	2	3	2	1	----	----	2	1	3	24

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	5	2	10	3	9	4	2	4	2	4	3	4	52
German,	----	----	1	1	----	1	----	----	----	----	----	----	3
Polish,	----	----	----	----	4	1	----	----	2	----	----	----	7
Slavonian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Russian,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	5	2	11	4	14	6	2	4	4	5	3	4	64

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Lincoln Colliery:															
Lincoln No. 1,	Slope,	Gaseous,	Fan,	21	7	6	85	2.4	Guibal,	Steam,	46	253,370	253,260	257,000	958
Lincoln No. 2,	Slope,		Fan,	18	6	5.3	85	1.6	Guibal,	Steam,					
Lincoln No. 2 Vein Trial Slope,	Slope,		Fan,	12	4	5	88	.7	Guibal,	Electricity,					
Lincoln Water Shaft,	Shaft,														
Brookside Colliery:															
Brookside No. 1,	Slope,	Gaseous,	Fans,	18	6	5	95	1.5	Guibal,	Steam,	22	297,000	290,000	310,000	662
Brookside No. 4,	Slope,			18	6	5	80	.8							
Brookside,	Shaft,			21	7	6	75	1.1							
Brookside Tender Slope,	Slope,			14	4	5	100	1.2							
Good Spring Colliery:															
Good Spring No. 1,	Slope,	Gaseous,	Fans,	18	6	5	90	.8	Guibal,	Steam,	19	152,000	152,000	160,000	554
Good Spring No. 2 Tender Slope,	Slope,			15	4.5	5	80	1.1							
Good Spring No. 3,	Slope,			18	6	5	60	.8							
Good Spring,	Tunnel,			18	6	5	70	.8							

Lehigh Valley Coal Co.															
Blackwood Colliery:															
Blackwood,	Tunnels,	Gaseous,	Fans,	20	6	5.9	75	1.3	Guibal,	Steam,	34	142,700	142,700	150,000	449
Dundass,				12	4	3	100	.8							
Number 4,				20	6	5.9	100	1.8							
Summit Branch Mining Co.															
Williamstown Colliery:															
Number 1,	Shaft,	Gaseous,	Fans,	25	8	7	60	2.2	Guibal,	Steam,	10	162,000	162,000	170,000	716
Number 2,	Shaft,			25	8	7	60	1.8			8				
Bear Valley,	Slope,			14	4	4	62	1.4			10				
Number 3,	Slope,			25	8	7	62	1.4			2				
Summit Slope Tender,	Slope,			25	8	7	62	1.4			2				
Big Lick,	Slope,			14	4	4	75	.9			4				
Short Mountain Colliery:															
Short Mountain:															
Slope,		Gaseous,	Fan,	25	8	7	60	2.7	Guibal,	Steam,	7	210,000	210,000	220,000	814
Lykens Valley,	Slope,	Gaseous,	Fan,	16	4	4	100	1.2	Guibal,	Steam,	8				
Underground Slope No. 4,	Slope,	Gaseous,	Fan,	25	8	7	60	2.5	Guibal,	Steam,	8				
Number 1,	Drift,	Non-gas.,	Natural,												
Bear Gap,	Tunnel,	Gaseous,	Fan,	10	2.5	2.5	70	.2	Guibal,	Compressed air,	6				

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.						
Lincoln,	Schuylkill,	W. J. Richards, General Manager.	Pottsville,	Reese Tasker, Mining Supt.	Pottsville,	Philadelphia and Reading
Brookside,				E. E. Kaercher, Division Supt.		
Good Spring,				John Lorenz, Inside Supt.	Tremont,	Philadelphia and Reading
Valley View,*				J. H. Lee, Outside Supt.		
Rausch Creek Washery,						
Middle Creek Washery,						
Lehigh Valley Coal Co.						
Blackwood,	Schuylkill,	S. D. Warriner, General Manager, F. M. Chase, General Supt.	Wilkes-Barre,	William Underwood,	Mahanoy City,	Lehigh Valley
Summit Branch Mining Co.						
Williamstown,	Dauphin,	R. A. Quin,	Wilkes-Barre,	William Auman, Outside Supt.	Lykens,	Pennsylvania
Short Mountain,				M. J. Readdy, Inside Supt.		
Short Mountain Washery,						
Williamstown Washery,						

*Idle entire year.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Philadelphia and Reading Coal and Iron Co.													
Lincoln,	Schuylkill,	374,274	76,266	6,517	457,057	213	1,170	3	6	198,200	38,219	1,475	128
Brookside,		274,688	39,924	.....	314,612	212	894	7	2	49,525	35,372	7,435	115
Good Spring,		248,472	53,145	6,238	307,855	217	732	....	5	7,225	81,802	45,338	78
Valley View,													
Washeries:		897,434	169,335	12,755	1,079,524	.....	2,796	10	13	254,750	155,483	54,248	321
Rausch Creek,		64,415	4,093	958	69,466	100	86	....	....	.....	1	.....	2
Middle Creek,		83,479	7,685	.....	91,164	128	80	....	....	.....	2	.....	.....
		147,894	11,778	958	160,630	.....	166	....	....	.....	3	.....	2
Totals,		1,045,328	181,113	13,713	1,240,154	.....	2,962	10	13	254,750	155,486	54,248	323
Lehigh Valley Coal Co.													
Blackwood,	Schuylkill,	250,673	26,549	1,204	278,426	268	581	4	5	12,025	195,885	.....	16
Summit Branch Mining Co.													
Williamstown,	Dauphin,	292,487	53,237	5,006	350,730	227	1,091	4	28	142,725	84,086	.....	100
Short Mountain,		225,592	35,612	12,184	273,388	219	1,116	6	18	75,950	23,369	.....	125
		518,079	88,849	17,190	624,118	.....	2,207	10	46	218,675	107,455	.....	225

TABLE 2—Continued

Name of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Washeries:													
Short Mountain,	Dauphin,	91,442	31,022	3,193	125,657	413	36	----	----	----------	----------	----------	2
Williamstown,		41,031	54,153	544	95,728	519	37	----	----	----------	----------	----------	----------
		132,473	85,175	3,737	221,385	--------	73	----	----	----------	----------	----------	2
Totals,		650,552	174,024	20,927	845,503	--------	2,280	10	46	218,675	107,455	----------	227
Grand totals,		1,946,553	381,686	35,844	2,364,083	--------	5,823	24	64	485,450	458,826	54,248	566

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,			70	8,750	8,750	7		9	123	22,349	8	16,400	4,471	4	4
Lehigh Valley Coal Co.,	Schuylkill,			10	1,500	1,500	4		5	9	2,520				1	1
Summit Branch Mining Co.,	Dauphin,	7	1,010	94	11,540	12,550	7		11	129	13,537	9	11,795	3,982	4	6
Totals,		7	1,010	174	21,790	22,800	18		25	261	38,406	17	28,195	8,453	9	11

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slate pickers (boys)	Slate pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	7	49	----	631	249	129	32	4	456	617	2,174	----	10	43	130	58	16	14	517	788	2,962
Lehigh Valley Coal Co.,	Schuylkill,	3	8	----	238	57	9	6	1	30	97	449	1	2	11	17	6	2	3	90	132	581
Summit Branch Mining Co.,	Dauphin,	3	8	19	616	151	132	17	30	5	549	1,530	2	4	63	138	107	----	12	424	750	2,280
Totals,		13	65	19	1,485	457	270	55	35	491	1,263	4,153	3	16	117	285	171	18	29	1,031	1,670	5,823

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	22	16	17	22	20	13	7	14	13	23	23	24	214
Lehigh Valley Coal Co.,	Schuylkill,	25	19	23	22	25	25	14	19	24	25	24	23	268
Summit Branch Mining Co.,	Dauphin,	23	17	20	23	21	18	14	10	16	18	24	25	223

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 30	John Brown,	American,	Laborer,	17	S.			Brookside,	Schuylkill,	Skull fractured by being struck by a lump of coal that rolled down the plane. Died on his way home.
Feb. 6	William L. Conly,	American,	Miner,	32	S.			Short Mountain,	Dauphin,	Instantly killed by falling down manway. While getting out of the way of some falling coal he slipped and fell.
8	Benj. F. Reese,	American,	Miner,	55	M.	1		Blackwood,	Schuylkill,	Fatally injured by fall of rock at face of his breast. Died three hours later.
9	John E. Batdorff,	American,	Miner,	34	M.	1	4	Short Mountain,	Dauphin,	Instantly killed by the explosion of a shot that, it was supposed, had exploded three days previous; at face of gangway.
10	Frank Clappa,	Austrian,	Miner,	28	S.			Blackwood,	Schuylkill,	Instantly killed by fall of rock at face of his breast.
	Joseph Bonan,	Austrian,	Miner,	53	M.	1				Foot crushed. Blood poisoning set in and he died March 18.
March	Daniel Schoffstall,	American,	Miner,	52	M.	1	2	Brookside,	Schuylkill,	Smothered by being drawn down into gob, which started while he was standing on it at face of his breast.
10	Wasil Byskory,	Slavonian,	Laborer,	26	M.	1	1	Blackwood,	Schuylkill,	Fatally injured by fall of slate at face of gangway. Died the same day.
25	William H. Kosier,	American,	Miner,	35	M.	1	4	Short Mountain,	Dauphin,	Fatally injured by fall of slate at face of his breast. Died before he could be removed to the surface.
31	E. F. Miller,	American,	Miner,	34	M.	1	4	Short Mountain,	Dauphin,	Back and abdomen injured by fall of coal. Died April 6.
April 13	Charles Nelson,	American,	Driver,	25	M.	1	3	Brookside,	Schuylkill,	Fatally injured by falling under mine cars on gangway. Died April 14.
14	William Schultz,	Polish,	Miner,	47	M.	1	4	Brookside,	Schuylkill,	Instantly killed by falling under mine car on gangway.

May	1	George Fedor,	Polish,	Rockman,	28	M.	1	1	Williamstown,	Dauphin,	Skull fractured by the concussion from an explosion of gas on rock plane. Died the same day.
	10	Josiah Behney,	American,	Bottomman,	20	S.			Lincoln,	Schuylkill,	Left side of head crushed by being struck by a lump of coal that flew from loaded cars. The chain broke and the cars ran back to the bottom of the slope. Died May 13.
	18	John Zimmerman,	American,	Miner,	22	M.	1		Short Mountain,	Dauphin,	Fatally injured by fall of coal at face of his breast. Died May 21.
June	12	John Hool,	Polish,	Laborer,	27	M.	1	1	Short Mountain,	Dauphin,	Instantly killed by fall of rock in heading that he was reopening.
	28	Earl Bonawitz,	American,	Driver,	20	S.			Brookside,	Schuylkill,	Instantly killed by being kicked on the head by a mule and falling under mine car. The front wheel of car passed over his body.
July	17	Jacob A. Kreiser,	American,	Miner,	28	S.			Lincoln,	Schuylkill,	Instantly killed by a shot that blew through from east side. He sent his brother around to tamp and fire it.
Oct.	4	John Hornish,	American,	Miner,	38	M.	1	4	Lincoln,	Schuylkill,	Fatally injured by falling down manway of his breast. Died October 7.
	11	Joseph Murray,	American,	Laborer,	19	S.			Williamstown,	Dauphin,	Fatally injured by being squeezed between two mine cars at bottom of slope. Died October 14.
Nov.	11	Chas. Jesalonus,	Lithuanian,	Miner,	32	M.	1	3	Brookside,	Schuylkill,	Instantly killed by fall of rock at face of his working place while robbing pillars.
Dec.	1	George Hess,	American,	Driver,	25	S.			Williamstown,	Dauphin,	Fatally injured by falling under loaded mine car on gangway. Died the same day.
	2	John Ludwig,	American,	Laborer,	20	M.	1		Brookside,	Schuylkill,	Instantly killed by being run over by mine car that jumped off the track, between East and West Brookside mines. Outside.
	9	William Bainbridge,	American,	Miner,	30	M.	1	4	Williamstown,	Dauphin,	Fatally injured by falling down manway. Died before he could be removed to surface.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	Andrew Kerwin,	American,	Miner,	31	M.	Short Mountain,	Dauphin,	Left side badly bruised from hip to knee by fall of coal from high side of buggy gangway.
26	Thomas Radle,	American,	Miner,	21	S.	Williamstown,	Dauphin,	Right leg fractured by fall of slate at face of heading.
	Joseph H. Berdsoll,	American,	Miner,	20	S.	Williamstown,	Dauphin,	Back and kidneys injured by fall of rock at face of his working place.
30	Thomas Gauntlett,	American,	Miner,	34	M.	Blackwood,	Schuylkill,	Hand badly crushed by fall of rock at face of his working place.
	David Blackway,	American,	Miner,	41	M.	Short Mountain,	Dauphin,	Four ribs broken and one of the bones of the lower vertebrae fractured by fall of roof at face of his breast.
Feb. 9	C. J. Schlottman,	American,	Laborer,	28	M.	Short Mountain,	Dauphin,	Injured internally by being struck by debris from a delayed shot at face of gangway.
21	John Byerly,	American,	Miner,	31	M.	Williamstown,	Dauphin,	Ribs fractured and injured internally by fall of coal at face of his breast.
March 2	Henry Bitterman,	American,	Driver,	18	S.	Short Mountain,	Dauphin,	Small bone in leg broken by falling over a prop in getting out of the way of a kicking mule.
9	George Oun,	German,	Laborer,	54	M.	Lincoln,	Schuylkill,	Leg fractured below the knee by being kicked by a mule.
10	Joseph Shuttlesworth,	American,	Laborer,	21	S.	Williamstown,	Dauphin,	Injured internally by being squeezed between two dumpers. Outside.
17	Richard McCreaddy,	American,	Miner,	45	M.	Williamstown,	Dauphin,	Face and hands slightly burned by explosion of gas in chute he was driving.
27	G. H. Foster,	American,	Laborer,	44	M.	Short Mountain,	Dauphin,	Left arm broken in two places by being struck by falling timber.
	Val. Heinbach,	American,	Miner,	54	M.	Lincoln,	Schuylkill,	Leg fractured, face and body badly cut by being struck by coal from premature shot.

March	27	John Golden,	American,	Miner,	38	S.	Williamstown,	Dauphin,	Shoulders and instep injured by fall of coal at face of his breast.
		James O'Brien,	American,	Miner,	55	M.	Williamstown,	Dauphin,	Knee dislocated and body badly bruised.
		Rathumus Miller,	American,	Miner,	34	M.			Leg injured.
		Joseph Bopp,	American,	Laborer,	22	M.			Leg injured.
		William Lewis,	American,	Miner,	34	M.			Arm fractured and back injured. These men were injured when the cage struck the bottom of the shaft, the engineer having lost control of his engines.
April	12	Robert Martz,	American,	Miner,	29	M.	Short Mountain,	Dauphin,	Severely burned by explosion of gas in breast. They ignited gas with their open lights.
		Frank Hentz,	German,	Miner,	31	S.			
	22	Louis Fromme,	American,	Miner,	30	M.	Williamstown,	Dauphin,	Head and body badly bruised by falling down manway.
	29	Harry Kocher,	American,	Miner,	31	M.	Short Mountain,	Dauphin,	Face and hands slightly burned by explosion of gas in breast.
May	1	Joseph Walaski,	Polish,	Rockman,	36	S.	Williamstown,	Dauphin,	Walaski, Fedor and Petka were seriously burned on face, hands and body by an explosion of gas which they ignited with their open lights, on going back after a shot on the rock plane they were driving.
		Paul Fedor,	Polish,	Rockman,	22	M.			
		John Petka,	Polish,	Rockman,	37	M.			
		Milton Paul,	American,	Timberman,	56	M.			Head cut and rib fractured by the concussion from above explosion.
		Thomas Flynn,	American,	Machinist,	45	M.			Arm broken by the concussion from above explosion.
		Blaine Deitrick,	American,	Miner,	27	M.	Good Spring,	Schuylkill,	Hands and face slightly burned by explosion of gas in breast.
		Charles Long,	American,	Miner,	28	M.			
	2	John McKelva,	American,	Miner,	37	M.	Williamstown,	Dauphin,	Shoulder dislocated by fall of coal while robbing pillars.
	3	Fred. Mucher,	American,	Miner,	55	M.	Short Mountain,	Dauphin,	Collar bone torn loose and rib fractured by fall of slate at face of gangway.
	5	Frank Huntzinger,	American,	Roadman,	32	M.	Good Spring,	Schuylkill,	Leg fractured by flying chain on top of slope. Outside.
		Henry Scheaffer,	American,	Miner,	54	S.	Good Spring,	Schuylkill,	Leg fractured by fall of coal at face of breast.
	8	Allen Maurer,	American,	Driver,	17	S.	Good Spring,	Schuylkill,	Pelvis crushed by being caught between mine car and door frame on gangway.
	16	Michual Zukas,	Polish,	Miner,	38	M.	Williamstown,	Dauphin,	Hands and face slightly burned by explosion of gas in breast.
	22	John Bonnock,	Russian,	Driver,	30	M.	Short Mountain,	Dauphin,	Bone in left instep fractured by being caught between mine car and bottom slate on gangway.
June	1	Thomas Grescovitch,	Polish,	Laborer,	47	M.	Blackwood,	Schuylkill,	Three fingers of left hand crushed while blocking mine cars. Outside.
	14	Louis Irving,	American,	Miner,	36	M.	Brookside,	Schuylkill,	Back injured by fall of slate at face of breast.
	15	Paul Kraus,	German,	Miner,	40	S.	Short Mountain,	Dauphin,	Slightly burned by explosion of gas in breast.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 16	Solomon Granger,	American,	Laborer,	32	M.	Blackwood,	Schuylkill,	Scalp lacerated and shoulders bruised by fall of coal at face of gangway.
20	Roy Gilbert,	American,	Loader,	25	M.	Williamstown,	Dauphin,	Fingers of left hand smashed by lump of coal rolling down chute.
27	Henry Swegar,	American,	Laborer,	45	M.	Short Mountain,	Dauphin,	Three ribs fractured by mine timber falling on him. Outside.
July 13	John Goudy,	American,	Driver,	18	S.	Short Mountain,	Dauphin,	Pelvis fractured on both sides by being caught between mine car and prop on gangway.
	Charles A. Row,	American,	Miner,	34	M.	Short Mountain,	Dauphin,	Bone of left foot fractured by fall of slate at face of gangway.
Aug. 7	John Williams,	American,	Timberman,	33	M.	Williamstown,	Dauphin,	Lacerated wound in the groin by being caught between mule chain and mine car.
11	John Nunemacher,	American,	Miner,	32	S.	Brookside,	Schuylkill,	Bruised across back and kidneys by fall of slate while robbing pillars.
18	Samuel Mack,	American,	Miner,	37	M.	Blackwood,	Schuylkill,	Left knee injured by fall of coal at face of breast.
27	Charles E. Hoffman,	American,	Fire boss,	39	M.	Short Mountain,	Dauphin,	Rib fractured, severe bruises on left side and across kidneys by being caught between mine car and timber while coming up slope.
Sept. 12	James Stewart,	American,	Driver,	26	S.	Lincoln,	Schuylkill,	Legs fractured and body bruised by falling under mine cars on gangway.
19	Aaron Shamel,	American,	Miner,	33	M.	Blackwood,	Schuylkill,	Instep badly cut and bruised by fall of coal at face of breast.
21	Walter Jobinski,	Polish,	Miner,	26	M.	Williamstown,	Dauphin,	Face and hands slightly burned by explosion of gas at face of breast.
	Frank Fusnt,	Polish,	Miner,	30	S.			
Oct. 16	Well. Hoffman,	American,	Fireman,	23	S.	Lincoln,	Schuylkill,	Ankle dislocated and fractured. While blowing out a boiler the pipe twisted and struck him on ankle. Outside.

Oct.	18	Mike. Kashula,	Slavonian,	Laborer,	22	S.	Williamstown,	Dauphin,	Right leg fractured by being caught between bumpers of mine cars. Outside.
	20	Warden Geist,	American,	Miner,	24	M.	Williamstown,	Dauphin,	Hands and face burned by explosion of gas at face of their place.
		Patrick Craven,	American,	Miner,	28	S.			
	31	George L. Kramer,	American,	Loader,	34	M.	Short Mountain,	Dauphin,	Left leg fractured by being struck by a lump of slate while loading mine car on gangway.
Nov.	3	F. Zimmerman,	American,	Miner,	27	S.	Lincoln,	Schuylkill,	Compound fracture of right leg and right wrist dislocated by fall of rock while robbing pillars.
	22	Jos. F. Thomas,	American,	Miner,	38	M.	Short Mountain,	Dauphin,	Pelvis cracked on left side by fall of coal at face of breast.
	27	George Rickert,	American,	Laborer,	17	S.	Williamstown,	Dauphin,	Left leg fractured by being caught between bumpers of empty cars at head of breaker. Outside.
Dec.	5	Samuel Whitcomb,	American,	Miner,	48	M.	Williamstown,	Dauphin,	Three ribs fractured and injured internally by fall of coal while putting up timber at face of gangway.
		Arthur Frantz,	American,	Driver,	18	S.	Williamstown,	Dauphin,	Left hand badly lacerated by mine car on gangway.
	18	Morris Schneck,	American,	Miner,	45	M.	Lincoln,	Schuylkill,	Head and body badly cut and bruised by coal from a delayed shot in breast.
	29	Russel Fox,	American,	Runner,	18	S.	Short Mountain,	Dauphin,	Hand badly lacerated by falling under mine car. Outside.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Lincoln, Brookside, Good Spring.—Ventilation, drainage and condition as to safety, good.

Valley View.—Idle.

SUMMIT BRANCH MINING COMPANY

Williamstown and Short Mountain.—Ventilation and condition as to safety, good. Drainage fair.

LEHIGH VALLEY COAL COMPANY

Blackwood.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Brookside Colliery.—A tunnel has been driven from the No. 5 to the No. 4 vein, West No. 5 vein gangway, No. 3 plane, near "saddle," a distance of 144 feet.

A plane on West No. 4 vein gangway has been driven across the pitch 425 feet long, the landing of which is nearly completed.

A new traveling way and mule way from the No. 4 slope level to surface has been completed, and all mules from the No. 1 and No. 4 slope levels are taken to the surface at night.

Fireproof stables are being erected on the 4th lift of basin slope and at the bottom of the shaft. The mules on the top lifts are taken to the surface at night.

Outside: A wash-house of frame and concrete 20 by 38 feet, with steam heat and clothes hangers, has been completed at the shaft.

A stable for the mules of the 2nd and 3rd lifts is now in course of erection.

A concrete fan duct has been erected from the No. 4 slope fan to the top of the No. 4 vein airway.

A check-off house and lamp house completed at No. 4 slope.

Good Spring Colliery.—A tunnel 243 feet long has been driven from the bottom split of Mammoth vein to the Buck Mountain vein at breast No. 83 on the 2nd lift at No. 3 slope.

A tunnel 477 feet long has been driven from the Mammoth vein to the Orchard vein at breast No. 59 on 2nd lift slope.

A fireproof stable of concrete and iron construction has been completed in tunnel from bottom split of Mammoth to Skidmore vein on 2nd lift at No. 3 slope.

Fireproof stables are in course of construction on 3rd lift of No. 1 slope.

Two sets of return tubular boilers have been installed at No. 3 slope.

An ash flume to carry ashes by gravity from boiler house has been constructed at No. 3 slope.

An 18-foot fan has been erected on bottom split of Mammoth vein to replace the fan on Mammoth vein.

Check-off houses have been erected at Nos. 1 and 3 slopes.

Lincoln Colliery.—A tunnel from No. 4 vein to No. 2 vein on 7th lift, 636 feet long, has been completed.

Cross-over tunnels 380 feet long have been driven on the 7th and 8th lifts at No. 5 vein slope.

Electric locomotives have been installed on 7th and 8th lifts in No. 5 vein inside slope.

An electric pump for fresh water supply has been installed at New Lincoln.

A wash-house of concrete and wood has been erected at No. 2 vein trial slope.

A concrete tank for ash wash has been erected, capacity 28,000 gallons.

Fireproof stables are in course of construction on 4th and 6th lifts, No. 1 slope and 6th lift, No. 2 slope.

LEHIGH VALLEY COAL COMPANY

Blackwood Colliery.—Completed tunnel in workings from Buck Mountain to the Diamond vein on the west side.

On the east side a tunnel has been driven 404 feet between the Skidmore and the Tracy veins.

The replacing of the timber in Blackwood tunnel with concrete and steel has been continued throughout the year, and is now completed as far as it is intended to go at this time.

A gasoline-burning locomotive was installed at Dundass tunnel in September.

A slope has been started on the Tracy vein and is down 275 feet below the Blackwood tunnel level. A rope bore hole to operate this slope was drilled from the surface to the top rock of the vein, a distance of 270 feet.

SUMMIT BRANCH MINING COMPANY

Tunnels were driven from No. 9 vein to No. 9½ vein Bear Valley slope, on No. 2 and No. 3 lifts; also an airway in No. 2 shaft, and rock plane to counter, and fireproof stable.

Tunnels from West No. 9 vein to No. 7 vein, and from No. 7 vein to No. 11 vein, in Bear Valley slope extension.

A new motor line was built in Bear Valley slope extension; also a new concrete hospital inside.

A new stable and a pump-house, both fireproof, were erected in No. 1 shaft, also new cages and steam brake.

Tunnels were driven from East Little vein and from East White's vein to East Lykens vein, and an air tunnel from West Lykens vein to Little vein.

A tunnel sump gangway to Buck Mountain vein and a sump gangway in No. 2 shaft were driven.

Tunnels were driven for "Y" at bottom of Big Lick slope and on the 4th lift of same.

Three fresh water tanks, 50,000 gallons' capacity each, a new wash-house, an ash-washing device, a boiler coal trestle, and 68 new mine cars and buggies were built.

Airways have been driven from No. 2 gate to No. 3 West Short Mountain slope, to Basin pillar slope, and from White's vein No. 4 level in No. 4 slope.

Slopes have been driven in the following levels: Basin pillar No. 3 west, No. 1 drift, White ash vein, and White ash trial.

Planes have been driven on the following levels: No. 6 counter, Big vein No. 3 west, No. 2 counter White's vein No. 3 west, and No. 4 slope extension.

Crosscuts were driven in No. 5 counter, Little vein, east and west.

The following fireproof buildings have been erected: Engine room Bear Gap tunnel, No. 1 drift, Basin pillar slope, No. 4 slope extension; pump-house White's vein No. 4 level, No. 4 slope; also new stables.

A concrete lamp-house, air compressor building and fan house have been erected.

Built 150 new mine cars and buggies.

Erected new Ingersoll-Rand air compressor; steam and air lines; new water heater and building; and lumber storage building.

A complete Draeger apparatus has been purchased and the men are being trained how to use it in case of emergency.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23, and at Lykens April 12 and 14. The Board of Examiners was composed of the following: Charles J. Price, Mine Inspector, Lykens; William Auman, Superintendent, Lykens; W. C. Wagner, Miner; Tower City, and Samuel Evans, Miner, Minersville.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John R. Lewis, Williamstown.

Assistant Mine Foremen

George F. Welker, Samuel F. McCoy, Charles E. Hoffman, Lykens; Thomas H. Miller, Wiconisco; Charles A. Schrope, Orwin; Allen Schreiner, James A. Bailey, Tower City; George W. Unger, Muir; William Hoppstetter, Charles C. Wetzel, Tremont; Michael F. Farrel, Donaldson.

TWENTY-FIRST DISTRICT

SULLIVAN, SUSQUEHANNA, LACKAWANNA AND WAYNE COUNTIES

Forest City, Pa., February 26, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Report as Inspector of Mines of the Twenty-first Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
BENJAMIN MAXEY, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	8
Number of mines,	13
Number of mines in operation,	13
Number of tons of coal shipped to market,	1,470,998
Number of tons used at mines for steam and heat,	120,221
Number of tons sold to local trade and used by employes,	20,411
Number of tons produced,	1,611,630
Number of tons produced by compressed air machines,	.....
Number of tons produced by electrical machines,	.....
Number of persons employed inside of mines,	2,209
Number of persons employed outside,	846
Number of fatal accidents inside of mines,	6
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	18
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	268,605
Number of persons employed per fatal accident inside,	368
Number of persons employed per fatal accident outside,	423
Number of persons employed per non-fatal accident inside,	123
Number of persons employed per non-fatal accident outside,	423
Number of wives made widows,	5
Number of children made orphans,	9
Number of steam locomotives used inside of mines,	4
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	.....
Number of compressed air locomotives used outside,	.....
Number of electric motors used inside,	25
Number of electric motors used outside,	.....
Number of fans in use,	12
Number of furnaces in use,	.....
Number of gaseous mines in operation,	.....
Number of non-gaseous mines in operation,	13
Number of new mines opened,	.....
Number of old mines abandoned,	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Hillside Coal and Iron Company,	596,036
Hudson Coal Company,	362,232
Connell Anthracite Mining Company,	326,130
Northern Anthracite Coal Company,	178,503
O'Boyle-Foy Anthracite Coal Company,	127,253
Randall and Schaad Brothers Anthracite Coal Company, Limited,	8,676
Clinton Falls Coal Company,	8,300
Stillwater Coal Company,	4,500
Total,	1,611,630

Production by Counties

Sullivan,	640,562
Susquehanna,	600,536
Lackawanna,	307,898
Wayne,	62,634
Total,	1,611,630

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Hillside Coal and Iron Co.,	1	2	3	4	2	6	596,036	149,009	946	345	1,291	946	173	237	173
Hudson Coal Co.,	1		1	4		4	302,232	90,558	561	149	710	561		140	
Connell Anthracite Mining Co.,				4		4		81,533	330	162	492			83	
Northern Anthracite Coal Co.,	3		3	1		1	59,501	178,503	170	95	265	57		170	
O'Boyle-Foy Anthracite Coal Co.,	1		1	5		5	127,253	25,450	141	67	208	141		28	
Miscellaneous Companies,									61	28	89				
Totals and averages for district,	6	2	8	18	2	20	268,605	89,535	2,209	846	3,055	368	423	123	423

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,										1			1	16.67
Falls of roof,		1										1	2	33.33
Explosions of powder and dynamite,			2										2	33.33
Machinery,					1								1	16.67
Totals,		1	2		1					1		1	6	100.00
Causes of Accidents Outside														
Cars,									1				1	50.00
Machinery,											1		1	50.00
Totals,									1		1		2	100.00
Grand totals inside and outside,		1	2		1				1	1	1	1	8	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,			1										1	5.56
Falls of roof,	3	2		1		1	1	1					9	50.00
Mine cars,				1			1					1	3	16.67
Explosions of powder and dynamite,	1											1	2	11.11
Blasts, premature and otherwise,		1										1	2	11.11
Falling into shafts,								1					1	5.55
Totals,	4	3	1	2		1	2	2				3	18	100.00
Causes of Accidents Outside														
By falling,									1				1	50.00
Boulder rolled on him,					1								1	50.00
Totals,					1				1				2	100.00
Grand totals inside and outside,	4	3	1	2	1	1	2	2	1			3	20	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	1	2	----	----	----	----	----	----	1	----	----	4
Miners' laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Pumpmen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	----	1	2	----	1	----	----	----	----	1	----	1	6
Outside													
Laborers,	----	----	----	----	----	----	----	----	1	----	1	----	2
Totals,	----	----	----	----	----	----	----	----	1	----	1	----	2
Grand totals inside and outside,	----	1	2	----	1	----	----	----	1	1	1	1	8

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	1	----	1	----	1	----	----	----	----	----	3	9
Miners' laborers,	1	2	1	----	----	----	1	2	----	----	----	----	7
	----	----	----	----	----	----	1	----	----	----	----	----	1
Motor helpers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Totals,	4	3	1	2	----	1	2	2	----	----	----	3	18
Outside													
Prop cutters,	----	----	----	----	----	----	----	----	1	----	----	----	1
Laborers,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	----	----	----	----	1	----	----	----	1	----	----	----	2
Grand totals inside and outside,	4	3	1	2	1	1	2	2	1	----	----	3	20

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American			1							1		1	3
Welsh					1								1
Irish			1										1
Italian									1		1		2
Lithuanian		1											1
Totals		1	2		1				1	1	1	1	8

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American	1			1			1		1				4
English												1	1
Irish		1											1
Polish	1	1	1	1		1						2	7
Hungarian	1												1
Italian					1		1						2
Lithuanian								2					2
Austrian	1	1											2
Totals	4	3	1	2	1	1	2	2	1			3	20

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Hillside Coal and Iron Co.															
Forest City Colliery:															
Forest City No. 2,	Shafts,	Non-gas.,	2 Fans,	18	6	6	70	1	Guibal,	Steam,	6	107,056	108,208	113,185	330
Clifford,				24	7	7	65	1	Guibal,	Steam,	5	72,874	70,540	74,014	302
			Fan,	18	5	5	80	1	Guibal,	Steam,	5	76,850	72,594	77,349	295
Hudson Coal Co.															
Clinton Colliery:															
Clinton No. 3, Top Vein,	Slope,	Non-gas.,	Fan,	17	4	4	95	1.6	Guibal,	Steam,	2	52,600	50,620	54,695	118
Clinton No. 8, Riverside,	Slope,		Fan,	20	5	5	75	1.4			4	77,450	77,820	78,050	212
Clinton No. 5, Clifford Vein,	Drift,		Fan,	10	2.5	2.5	112	.6			1	27,500	26,675	28,500	51
Clinton No. 7, Clifford Vein,	Drift,		Fan,	10	2.5	2.5	112	.5			1	27,600	26,750	28,450	72
Clinton No. 10, Grassy Vein,	Slope,		Fan,	20	5	5	75	.9			4	83,900	81,420	86,990	159
Connell Anthracite Mining Co.															
Connell Colliery:															
Connell,	Drift,	Non-gas.,	Fan,	16	4	4	100	.2	Guibal,	Steam,	5	94,000	67,000	100,000	295
Northern Anthracite Coal Co.															
Murray Colliery:															
Murrays,	Shaft,	Non-gas.,	Fan,	16	5	6	85	1.6	Guibal,	Steam,	3	72,500	68,600	72,500	170

O'Boyle-Foy Anthracite Coal Co.															
O'Boyle-Foy Colliery:															
O'Boyle-Foy,	Shaft,	Non-gas.,	Fan,	18	6	6	60	1.2	Guibal,	Steam,	3	41,500	46,300	50,800	140
Randall and Schaad Brothers Anthracite Coal Co., Ltd.															
Randall and Schaad Colliery:															
Randall and Schaad,	Slope,	Non-gas.,	*						Guibal,	Steam,	1	18,000	18,000	20,500	21
Clinton Falls Coal Co.															
Clinton Falls Colliery:															
Clinton Falls,	Drift,	Non-gas.,	Natural,								1	6,000	5,000	7,000	21
Stillwater Coal Co.															
Stillwater Colliery:															
Stillwater,	Drift,	Non-gas.,	Fan,	8	3	2	.5	.77	Guibal,	Steam,	1	6,000	6,000	6,100	16

*Ventilated by O'Boyle-Foy Anthracite Coal Co. on Southwest Split.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Hillside Coal and Iron Co. Forest City,	Susquehanna,	W. W. Inglis,	Dunmore,	A. E. Yetter,	Forest City,	Erie
Hudson Coal Co. Clinton,	Lackawanna, Wayne,	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceton,	Delaware and Hudson
Connell Anthracite Mining Co. Connell,	Sullivan,	W. L. Connell,	Scranton,	T. V. McLaughlin,	Bernice,	Lehigh Valley
Northern Anthracite Coal Co. Murray,	Sullivan,	M. J. Murray,	Dunmore,	P. J. Murray,	Murray,	Lehigh Valley
O'Boyle-Foy Anthracite Coal Co. O'Boyle-Foy,	Sullivan,	M. W. O'Boyle,	Pittston,	M. J. Clemons,	Murray,	Lehigh Valley
Randall and Schaad Brothers Anthracite Coal Co., Ltd. Randall and Schaad,	Sullivan,	W. J. Schaad,	Mildred,			Lehigh Valley
Clinton Falls Coal Co. Clinton Falls,	Wayne,	Peter Murphy,	Forest City,			N. Y. O. and W.
Stillwater Coal Co. Stillwater,	Susquehanna,	W. D. Lewis,	Forest City,			Erie

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Hillside Coal and Iron Co.													
Forest City,	Susquehanna,	342,582	46,108	7,346	396,036	73	1,291	3	6	627,475	----------	93,189	82
Hudson Coal Co.													
Clinton,	Wayne, / Lackawanna,	329,720	29,200	3,312	362,232	270	710	1	4	450,525	55,533	----------	88
Connell Anthracite Mining Co.													
Connell,	Sullivan,	294,684	29,200	2,246	326,130	279	492	----	4	78,450	16,197	----------	9
Northern Anthracite Coal Co.													
Murray,	Sullivan,	170,539	5,679	2,285	178,503	182	265	3	1	144,775	1,950	----------	43
O'Boyle-Foy Anthracite Coal Co.													
O'Boyle-Foy,	Sullivan,	118,192	7,084	1,977	127,253	207	208	1	5	128,050	1,000	----------	18
Randall and Schaad Brothers Anthracite Coal Co., Ltd.													
Randall and Schaad,	Sullivan,	6,981	1,000	695	8,676	171	27	----	----	10,375	150	----------	4
Clinton Falls Coal Co.													
Clinton Falls,	Wayne,	6,950	1,200	150	8,300	199	40	----	----	11,075	----------	----------	5
Stillwater Coal Co.													
Stillwater,	Susquehanna,	1,350	750	2,400	4,500	150	22	----	----	9,000	300	----------	4
Totals,		1,470,998	120,221	20,411	1,611,630	--------	3,055	8	20	1,459,725	75,130	93,189	253

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Hillside Coal and Iron Co.,	Susquehanna,			25	2,750	2,750	5		14	43	3,000	4	1,600	1,000	4	
Hudson Coal Co.,	Wayne, Lackawanna,	25	737	1	125	862	1			40	1,765	7	4,200	1,400		1
Connell Anthracite Mining Co.,	Sullivan,			6	1,600	1,600			11	8	1,212	1	900	450	4	
Northern Anthracite Coal Co.,	Sullivan,			5	450	450				5	400	1	1,174	1,000		
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,			2	450	450	8			8	450	2	160	130		
Randall and Schaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,			1	80	80				2	75	1	200	200		
Clinton Falls Coal Co.,	Wayne,	1	60			60										
Stillwater Coal Co.,	Susquehanna,			2	200	200				3	120	1	75	25		
Totals,		26	797	42	5,655	6,452	14		25	109	7,022	17	8,309	4,205	8	1

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Slatepickers (boys)	Slatepickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Hillside Coal and Iron Co.,	Susquehanna,	3	8	----	356	307	67	29	8	139	29	946	1	1	21	32	50	28	4	208	345	1,291
Hudson Coal Co.,	Wayne,	1	3	----	184	220	76	18	4	43	12	561	------	1	6	23	6	28	1	84	149	710
	Lackawanna,																					
Connell Anthracite Mining Co.,	Sullivan,	1	1	----	140	80	------	3	9	18	78	330	1	1	15	16	15	21	5	88	162	492
Northern Anthracite Coal Co.,	Sullivan,	1	----	----	60	60	22	11	1	8	7	170	1	2	1	5	8	30	3	45	95	265
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,	1	----	----	62	48	9	5	2	6	8	141	1	1	3	6	8	28	1	19	67	208
Randall and Schaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,	1	1	----	17	------	2	------	------	------	------	21	1	----	1	1	----	1	----	2	6	27
Clinton Falls Coal Co.,	Wayne,	1	----	----	15	1	6	------	------	1	------	24	------	1	----	3	6	2	----	4	16	40
Stillwater Coal Co.,	Susquehanna,	1	----	----	6	6	2	------	1	------	------	16	------	1	----	2	1	1	1	------	6	22
Totals,		10	13	----	840	722	184	66	25	215	134	2,209	5	8	47	88	94	139	15	450	846	3,055

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Hillside Coal and Iron Co.,	Susquehanna,	23	23	25	22	22	23	21	24	23	22	22	23	273
Hudson Coal Co.,	Wayne, / Lackawanna,	24	23	24	22	23	21	15	26	24	22	23	23	270
Connell Anthracite Mining Co.,	Sullivan,	24	24	27	23	24	24	17	23	23	24	23	23	279
Northern Anthracite Coal Co.,	Sullivan,	25	17	16	18	10	9	6	5	13	17	24	22	182
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,	23	18	19	19	17	8	13	13	11	22	22	22	207
Randall and Schaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,	26	24	24	------	------	------	------	------	21	26	25	25	171
Clinton Falls Coal Co.,	Wayne,	25	24	11	20	24	8	7	13	15	16	15	18	199
Stillwater Coal Co.,	Susquehanna,	26	24	------	------	------	------	------	------	26	24	26	24	150

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 25	Anthony Glumaner,	Lithuanian,	Miner,	40	M.	1	2	O'Boyle-Foy,	Sullivan,	Instantly killed by fall of roof at face of his chamber.
Mar. 16	Patrick Lynott,	Irish,	Miner,	52	M.	1	2	Murray,	Sullivan,	Fatally injured by explosion of dynamite on gangway.
	Daniel Hoffal,	American,	Miner,	40	M.	1	1	Murray,	Sullivan,	Instantly killed by explosion of dynamite on gangway.
May 15	Evan Cox,	Welsh,	Pumpman,	26	S.			Forest City,	Susquehanna,	Fatally injured by being caught between the gears and pinion wheels of electric pump.
Sept. 23	Mike Makure,	Italian,	Laborer,	20	S.			Forest City,	Susquehanna,	Instantly killed by head being caught between top of car and cross beams while riding on car. Outside.
Oct. 2	Harry Nelson,	American,	Miner,	30	S.			Clinton,	Wayne,	Fatally injured by fall of coal at face of his chamber.
Nov. 16	Anthony Covet,	Italian,	Laborer,	46	M.	1	3	Forest City,	Susquehanna,	Instantly killed. His head came in contact with the revolving scrapers of conveyor line. Outside.
Dec. 18	James Dunlop,	American,	Laborer,	26	M.	1	1	Murray,	Sullivan,	Instantly killed by fall of roof while he and the miner were replacing a timber at face of chamber.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Joseph Rizezenski,	Polish,	Miner,	52	M.	Forest City,	Susquehanna,	Head and body severely injured by explosion of powder at face of chamber.
6	Henry Cartisson,	Hungarian,	Miner,	39	M.	O'Boyle-Foy,	Sullivan,	Left leg severely injured by fall of roof at face of chamber.
14	Gregory Planinski,	Austrian,	Miner,	43	M.	Clinton,	Wayne,	Skull fractured by fall of roof at face of chamber.
24	Charles Pelton,	American,	Laborer,	40	M.	Connell,	Sullivan,	Left leg fractured by fall of roof at face of chamber.
Feb. 25	William Quinn,	Irish,	Miner,	30	S.	O'Boyle-Foy,	Sullivan,	Thumb injured by fall of roof at face of chamber.
	Anthony Felbridge,	Polish,	Laborer,	23	S.	O'Boyle-Foy,	Sullivan,	Leg broken.
27	Anthony Pounter,	Austrian,	Laborer,	21	S.	Clinton,	Wayne,	Face lacerated by flying piece of rock from a blast fired in face of chamber.
Mar. 28	Taffel Sucholoskie,	Polish,	Laborer,	31	M.	Forest City,	Susquehanna,	Arm broken and head injured by fall of coal from pillar that was being robbed.
April 12	Daniel Filler,	American,	Miner,	38	M.	Murray,	Sullivan,	Back injured by fall of roof at face of gangway.
19	Edward Barnofsky,	Polish,	Motor-helper,	24	S.	Connell,	Sullivan,	Left arm broken by being caught between car and roof on gangway. He was riding on car when it jumped the track.
May 22	Santo Peter,	Italian,	Laborer,	18	S.	Forest City,	Susquehanna,	Leg fractured by a boulder rolling on him while digging a trench. Outside.
June 3	Paul Rudyinski,	Polish,	Miner,	38	M.	Clinton,	Wayne,	Right leg broken by fall of roof at face of chamber.
July 24	Nefio Rinno,	Italian,	Laborer,	26	S.	O'Boyle-Foy,	Sullivan,	Body injured by fall of rock at face of chamber.

July	25	Henry Griffith,	American,	Rope-rider,	24	M.	O'Boyle-Foy,	Sullivan,	Small bone in right foot broken by cars on main haulage road.
Aug.	10	John Sepok,	Lithuanian,	Laborer,	64	S.	Connell,	Sullivan,	Toe cut off by fall of roof at face of chamber.
	22	Ladie Stashintes,	Lithuanian,	Laborer,	21	S.	Forest City,	Susquehanna,	Internally injured by falling into shaft a distance of 25 feet.
Sept.	8	W. J. Pentecost,	American,	Prop-Cutter,	60	M.	Forest City,	Susquehanna,	Right arm broken by falling. He was loading a prop into a car when he slipped and fell. Outside.
Dec.	1	Beny Kosheski,	Polish,	Miner,	24	M.	Connell,	Sullivan,	Three ribs broken by cars on gangway.
	28	Stanley Petcavage,	Polish,	Miner,	39	M.	Clinton,	Wayne,	Injured by flying piece of coal from a blast fired at face of chamber.
	30	William Knight,	English,	Miner,	43	M.	Forest City,	Susquehanna,	Left arm and head lacerated by explosion of powder at face of chamber.

CONDITION OF COLLIERIES

HILLSIDE COAL AND IRON COMPANY

Forest City.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Clinton.—Ventilation, drainage and condition as to safety, good.

CONNELL ANTHRACITE MINING COMPANY

Connell.—Ventilation, drainage and condition as to safety, good.

NORTHERN ANTHRACITE COAL COMPANY

Murray.—Ventilation, drainage and condition as to safety, good.

O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foy.—Ventilation, drainage and condition as to safety, good.

RANDALL AND SCHAAD BROTHERS ANTHRACITE COAL CO., LTD.

Randall and Schaad.—Ventilation, drainage and condition as to safety, good.

CLINTON FALLS COAL COMPANY

Clinton Falls.—Ventilation, drainage and condition as to safety, fair.

STILLWATER COAL COMPANY

Stillwater.—Ventilation fair; drainage and condition as to safety, good.

IMPROVEMENTS

HILLSIDE COAL AND IRON COMPANY

Forest City Colliery.—A new washery has been erected near the former location of the Clifford breaker, in order to prepare the coal in the Clifford culm dump.

Two batteries of return tubular boilers, 600 H. P., have been installed in No. 2 shaft fireroom. The old boiler house has been replaced by a new and more up-to-date corrugated iron building.

A pair of first-motion engines, 22 by 36 inches, installed on the surface near No. 2 shaft for operating the Dunmore slope, to replace a smaller pair of second-motion engines. A corrugated iron building surrounds these engines.

A new slope has been started on the Gray tract about one and one-half miles below Forest City Colliery. This will open up the second and third Dunmore vein in this territory and will be operated by a pair of first-motion engines located at the head of Oak street, Vandling. These engines have been installed and a corrugated iron house completed. A concrete subway has also been constructed accommodating two tracks underneath Oak street from a point about 150 feet above Main street to a point about 75 feet below Clinton street, or a total of about 600 feet.

Bottom Dunmore Vein.—A new motor road from the foot of Clifford shaft to the foot of Dunmore slope has been completed; Clifford shaft has been abandoned as a hoisting way and hereafter all the coal will be transported to the foot of Dunmore slope by motor and hoisted to the surface by way of No. 2 shaft.

A rock tunnel has been driven in a southerly direction through a fault south of the Dunmore slope, which will develop the 3rd Dunmore vein beyond the fault.

HUDSON COAL COMPANY

Clinton Colliery.—Inside: New haulage road driven about 2,000 feet and is in operation.

Outside: A washery, 62 by 80 feet, has been built and is nearly ready for operation. Two and one-half miles of poles and wiring completed for electrifying the colliery.

Twelve-inch pump hole 400 feet deep to Clifford vein.

NORTHERN ANTHRACITE COAL COMPANY

Murray.—Installed a 24-inch cast iron column pipe in air shaft, through which to pump mine water to the surface.

Also installed two piston pumps, capable of discharging 1,200 gallons per minute to the surface, with a piston travel of 137 strokes per minute.

Replaced 25 feet of old cribbing on the air shaft with new timber and backed it with a concrete wall 2 feet thick. All wooden buildings in the mine are also being replaced with concrete buildings.

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